Index to volume 83

Author index*

A

Aalbers M (*see* van Ree et al). 1989;83:144-51
Aalberse RC (*see* Heymann et al). 1989;83:1055-67
—— (*see* van Ree et al). 1989;83:144-51
Adkinson NF Jr (*see* Van Metre et al). 1989;83:888-99
—— (*see* Weiss et al). 1989;83:1040-8
—— (*see* Wood et al). 1989;83:730-4
Affrime MB (*see* Bolinger et al). 1989;83:123-6
Agrawal DK (*see* Townley et al). 1989;83:997-1010 (CME article)
Akabane T (*see* Yamazaki et al). 1989;83:967-72
Akagi K, Townley RG. Spontaneous histamine release and histamine content in normal subjects and subjects with asthma. 1989;83:742-9
Alam R (*see* Kuna et al). 1989;83:816-24
Altman LC (*see* Ayars et al). 1989;83:610-8
—— (*see* McManus et al). 1989;83:619-26
Amirav I. Regarding the article by Eigen et al. 1989;83:1138-9 (Letter)
Ansaloni R (*see* Ortolani et al). 1989;83:683-90
Ansari AA (*see* Zwollo et al). 1989;83:47-54
Arm JP, Walport MJ, Lee TH. Expression of complement receptors type 1 (CR1) and type 3 (CR3) on circulating granulocytes in experimentally provoked asthma. 1989;83:649-55
—— (*see* O'Hickey et al). 1989;83:472-6
Arntzen FC, Wilhelmsen TW, Løwenstein H, Gjesing B, Maasch HJ, Strömberg R, Einarsson R, Backman A, Mäkinen-Kiljunen A, Ford A. The international collaborative study on the first international standard of birch (*Betula verrucosa*)-pollen extract. 1989;83:66-82
Arreaza EE (*see* McClean et al). 1989;83:738-41
Atkins FM (*see* Bock and Atkins). 1989;83:900-4
Atkins PC, Valenzano M, Goetzl EJ, Ratnoff WD, Graziano FM, Zweiman B. Identification of leukotriene B_4 as the neutrophil chemotactic factor released by antigen challenge from passively sensitized guinea pig lungs. 1989;83:136-43
—— (*see* Shalit et al). 1989;83:691-6
Aurich R (*see* Magnussen et al). 1989;83:467-71
Avila MJ (*see* Blanca et al). 1989;83:381-5
Axelrod D (*see* Castellanos and Axelrod). 1989;83:91-4
Ayars GH, Altman LC, Frazier CE, Chi EY. The toxicity of constituents of cedar and pine woods to pulmonary epithelium. 1989;83:610-8

B

Backman A (*see* Arntzen et al). 1989;83:66-82
Banov CH (*see* Storms et al). 1989;83:1083-90
Barnes PJ. New concepts in the pathogenesis of bronchial hyperresponsiveness and asthma. 1989;83:1013-26 (Postgrad. course)
—— (*see* McCusker et al). 1989;83:1118-24
Bascom R (*see* Freeland et al). 1989;83:634-42
Baur X, Weiss W, Jarosch B, Menz G, Schoch Chr, Schmitz-Schumann M, Virchow Chr. Immunoprint pattern in patients with allergic bronchopulmonary aspergillosis in different stages. 1989;83:839-44
Belin L (*see* Wass and Belin). 1989;83:126-35
Bender B (*see* Lerner et al). 1989;83:1141-2 (Letter)
Berkebile C (*see* Kettelhut et al). 1989;83:866-70
Bernhisel-Broadbent J, Sampson HA. Cross-allergenicity in the legume botanical family in children with food hypersensitivity. 1989;83:435-40
Bessot JC (*see* Hemmendinger et al). 1989;83:990-6
Bewtra AK (*see* Townley et al). 1989;83:997-1010 (CME article)
Bienenstock J (*see* Ohnishi et al). 1989;83:1091-100
Bischoff E (*see* Le Mao et al). 1989;83:926-33
Björkstén B (*see* Taudorf et al). 1989;83:589-94
Black PN (*see* Fuller et al). 1989;83:939-44
Blanca M, Fernandez J, Miranda A, Terrados S, Torres MJ, Vega JM, Avila MJ, Perez E, Garcia JJ, Suau R. Cross-reactivity between penicillins and cephalosporins: clinical and immunologic studies. 1989;83:381-5
Bock SA, Atkins FM. The natural history of peanut allergy. 1989;83:900-4
Bodman SF (*see* Storms et al). 1989;83:1083-90
—— (*see* Zunich et al). 1989;83:428-34
Boey H, Rosenbaum R, Castracane J, Borish L. Interleukin-4 is a neutrophil activator . 1989;83:978-84
Bolinger AM, Young KYL, Gambertoglio JG, Newth CJL, Zureikat G, Powell M, Leung P, Affrime MB, Symchowicz S, Patrick JE. Influence of food on the absorption of albuterol Repetabs. 1989;83:123-6
Borish L (*see* Boey et al). 1989;83:978-84
Bork K, Witzke G. Long-term prophylaxis with C1-inhibitor (C1 INH) concentrate in patients with recurrent angioedema caused by hereditary and acquired C1-inhibitor deficiency. 1989;83:677-82
Bosco LA (*see* Gerstman et al). 1989;83:1032-9
Boulet L-P, Turcotte H, Tennina S. Comparative efficacy of salbutamol, ipratropium, and cromoglycate in the prevention of bronchospasm induced by exercise and hyperosmolar challenges. 1989;83:882-7
Bousquet J, Hejjaoui A, Dhivert H, Clauzel AM, Michel FB. Immunotherapy with a standardized *Dermatophagoides pteronyssinus* extract. III. Systemic reactions during the rush protocol in patients suffering from asthma. 1989;83:797-802
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Boyd ND (*see* Minuk et al). 1989;83:462-6
Bradley D (*see* Kettelhut et al). 1989;83:866-70
—— (*see* McBride et al). 1989;83:374-80
Bressler RB, Sowell K, Huston DP. Therapy of chronic idiopathic urticaria with nifedipine: demonstration of beneficial effect

*January, pp. 1-368; February (part 1), pp. 369-508; February (part 2), pp. 509-62; March, pp. 563-710; April, pp. 711-854; May, pp. 855-996; June, pp. 997-1166.

in a double-blinded, placebo-controlled, crossover trial. 1989;83:756-63
—— (*see* Keffer et al). 1989;83:595-601
Bronsky EA (*see* Kemp et al). 1989;83:697-702
Brusasco V (*see* Crimi et al). 1989;83:985-90
Bruttmann G, Charpin D, Germouty J, Horak F, Kunkel G, Wittmann G. Evaluation of the efficacy and safety of loratadine in perennial allergic rhinitis. 1989;83:411-6
Bulpitt K (*see* Macy et al). 1989;83:871-5
Bunker-Soler AL (*see* Fire Ant Subcommittee of the American Academy of Allergy and Immunology). 1989;83:1107-11
Busse W, Randlev B, Sedgwick J. The effect of azelastine on neutrophil and eosinophil generation of superoxide. 1989;83:400-5
Buttoo K (*see* Spaner et al). 1989;83:1135-7

C

Campbell AR (*see* Swanson et al). 1989;83:776-83
Cartier A (*see* Malo et al). 1989;83:159-65
Casale TB. The interaction of azelastine with human lung histamine H_1, beta, and muscarinic receptor–binding sites. 1989;83:771-6
—— (*see* Little and Casale). 1989;83:862-5
Castellanos J, Axelrod D. Flexible fiberoptic rhinoscopy in the diagnosis of sinusitis. 1989;83:91-4
Castracane J (*see* Boey et al). 1989;83:978-84
Cazenave J-P (*see* Hemmendinger et al). 1989;83:990-6
Champlin RE (*see* Macy et al). 1989;83:871-5
Chapman MD (*see* Heymann et al). 1989;83:1055-67
—— (*see* Pollart et al). 1989;83:875-82
—— (*see* Wood et al). 1989;83:730-4
Charlesworth EN, Kagey-Sobotka A, Norman PS, Lichtenstein LM. Effect of cetirizine on mast cell-mediator release and cellular traffic during the cutaneous late-phase reaction. 1989;83:905-12
Charpin D (*see* Bruttmann et al). 1989;83:411-6
Chervinsky P (*see* Storms et al). 1989;83:1083-90
Chi EY (*see* Ayars et al). 1989;83:610-8
Christiansen SC (*see* Lang et al). 1989;83:802-10
Chung KF (*see* McCusker et al). 1989;83:1118-24
Clauzel AM (*see* Bousquet et al). 1989;83:797-802
Clemens JGJ (*see* van Ree et al). 1989;83:144-51
Cleveland RP (*see* Jin et al). 1989;83:165-70
Cockcroft DW, Murdock KY, Gore BP, O'Byrne PM, Manning P. Theophylline does not inhibit allergen-induced increase in airway responsiveness to methacholine. 1989;83:913-20
Creer TL, McLoughlin JA. The effects of theophylline on cognitive and behavioral performance. 1989;83:1027-9 (Editorial)
Creticos PS. Immunotherapy in asthma. 1989;83:554-62 (Symposium)
Crimi E, Brusasco V, Crimi P. Effect of nedocromil sodium on the late asthmatic reaction to bronchial antigen challenge. 1989;83:985-90
Crimi N, Palermo F, Polosa R, Oliveri R, Maccarrone C, Palermo B, Mistretta A. Effect of indomethacin on adenosine-induced bronchoconstriction. 1989;83:921-5
Crimi P (*see* Crimi et al). 1989;83:985-90
Curd JG (*see* Lang et al). 1989;83:802-10

D

Dahl R, Pedersen B, Hägglöf B. nocturnal asthma: effect of treatment with oral sustained-release terbutaline, inhaled budesonide, and the two in combination. 1989;83:811-5
—— (*see* Håakansson et al). 1989;83:933-9
D'Amato G, Lobefalo G. Allergenic pollens in the southern Mediterranean area. 1989;83:116-22
Danta I (*see* Donna et al). 1989;83:456-61
Darowski MJ (*see* Turner et al). 1989;83:643-8
Daul CB (*see* Morgan et al). 1989;83:1112-7
David B (*see* Le Mao et al). 1989;83:926-33
Daxun Z, Rafferty P, Richards R, Summerell S, Holgate ST. Airway refractoriness to adenosine 5'-monophosphate after repeated inhalation. 1989;83:152-8
de Leeuw AJ (*see* Kloprogge et al). 1989;83:393-400
de Monchy JGR (*see* Kauffman et al). 1989;83:829-38
—— (*see* Kloprogge et al). 1989;83:393-400
Denburg JA (*see* Dolovich et al). 1989;83:521-4 (Symposium)
—— (*see* Ohnishi et al). 1989;83:1091-100
de Vries K (*see* Kauffman et al). 1989;83:829-38
de Weck AL (*see* International Workshop et al). 1989;83:416-27
Dhivert H (*see* Bousquet et al). 1989;83:797-802
Dockhorn RJ (*see* Storms et al). 1989;83:1083-90
Dolen WK (*see* Zedalis et al). 1989;83:973-8
Dollery CT (*see* Fuller et al). 1989;83:939-44
Dolovich J, Hargreave FE, Jordana M, Denburg J. Late-phase airway reaction and inflammation. 1989;83:521-4 (Symposium)
—— (*see* Juniper et al). 1989;83:627-33
—— (*see* Ohnishi et al). 1989;83:1091-100
—— (*see* Spaner et al). 1989;83:1135-7
Donna E, Danta I, Kim CS, Wanner A. Relationship between deposition of and responsiveness to inhaled methacholine in normal and asymptomatic subjects. 1989;83:456-61
Dreborg S (*see* Taudorf et al). 1989;83:589-94
DuHamel TR (*see* Furukawa and DuHamel). 1989;83:1142 (Letter reply)
Dzuba-Fischer JMM (*see* Jaggi et al). 1989;83:845-52

E

Easton J (*see* Meltzer et al). 1989;83:960-6
Eber M (*see* Hemmendinger et al). 1989;83:990-6
Eggleston PA (*see* Wood et al). 1989;83:730-4
Einarsson R (*see* Arntzen et al). 1989;83:66-82
Ekramoddoullah AKM (*see* Jaggi et al). 1989;83:845-52
Endo T (*see* Nagakura et al). 1989;83:656-62

F

Feanny S (*see* Zimmerman et al). 1989;83:1139 (Letter reply)
Fernandez J (*see* Blanca et al). 1989;83:381-5
Fink JN. Symposium on inflammation in asthma: introduction. 1989;83:509 (Symposium)
Finnerty JP (*see* Holgate and Finnerty). 1989;83:537-47 (Symposium)
Finnerty N (*see* Loria et al). 1989;83:735-7
Fiocco GP (*see* Pollart et al). 1989;83:875-82
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Fisher R (*see* Weiss et al). 1989;83:1040-8
Fitch KD (*see* Morton et al). 1989;83:55-61
—— (*see* Morton et al). 1989;83:61-5
Fitzsimmons WE (*see* Luskin et al). 1989;83:406-11
Fling JA, Ruff ME, Parker WA, Whisman BA, Martin ME, Moss RB, Reid MJ. Suppression of the late cutaneous response by immunotherapy. 1989;83:101-9
Fogh K, Herlin T, Kragballe K. Eicosanoids in skin of patients with atopic dermatitis: prostaglandin E_2 and leukotriene B_4 are present in biologically active concentrations. 1989;83:450-5
Ford A (*see* Arntzen et al). 1989;83:66-82

Forsyth S (*see* Zimmerman et al). 1989;83:764-70
Fox JW (*see* Heymann et al). 1989;83:1055-67
Frazier CE (*see* Ayars et al). 1989;83:610-8
Freeland HS, Pipkorn U, Schleimer RP, Bascom R, Lichtenstein LM, Naclerio RM, Peters SP. Leukotriene B_4 as a mediator of early and late reactions to antigen in humans: the effect of systemic glucocorticoid treatment in vivo. 1989;83:634-42
Fritzler MJ (*see* Minuk et al). 1989;83:462-6
Fukuda T, Gleich GJ. Heterogeneity of human eosinophils. 1989;83:369-73 (Editorial)
Fukuhara JT (*see* Strunk et al). 1989;83:17-25
Fuller RW, Black PN, Dollery CT. Effect of the oral leukotriene D_4 antagonist LY171883 on inhaled and intradermal challenge with antigen and leukotriene D_4 in atopic subjects. 1989;83:939-44
Furukawa CT. Regarding the article by Furukawa et al. 1989;83:1140-1 (Letter reply)
——, DuHamel TR. Regarding the article by Furukawa et al. 1989;83:1142 (Letter reply)
—— (*see* Kemp et al). 1989;83:697-702

G

Gambertoglio JG (*see* Bolinger et al). 1989;83:123-6
Garcia JJ (*see* Blanca et al). 1989;83:381-5
Gawryl MS (*see* Langlois et al). 1989;83:11-6
Germouty J (*see* Bruttmann et al). 1989;83:411-6
Gerstman BB, Bosco LA, Tomita DK, Gross TP, Shaw MM. Prevalence and treatment of asthma in the Michigan Medicaid patient population younger than 45 years, 1980-1986. 1989;83:1032-9
Gilles JGG (*see* Somville et al). 1989;83:486-94
Gilner D (*see* Zunich et al). 1989;83:428-34
Gjesing B (*see* Arntzen et al). 1989;83:66-82
Gleich GJ (*see* Fukuda and Gleich). 1989;83:369-73 (Editorial)
Glover GC (*see* Zedalis et al). 1989;83:973-8
Goetzl EJ (*see* Atkins et al). 1989;83:136-43
—— (*see* Shalit et al). 1989;83:691-6
Gold M (*see* Zimmerman et al). 1989;83:764-70
Gold WM (*see* Sommerhoff et al). 1989;83:441-9
Goldberg B (*see* Meltzer et al). 1989;83:960-6
Goldenheim PD. Regarding an article by Milavetz et al. 1989;83:853-4 (Letter)
Gore BP (*see* Cockcroft et al). 1989;83:913-20
Gorin LJ, Jeha SC, Sullivan MP, Rosenblatt HM, Shearer WT. Burkitt's lymphoma developing in a 7-year-old boy with hyper-IgE syndrome. 1989;83:5-10
Graff-Lonnevig V (*see* Lilja et al). 1989;83:37-44
Grammer LC, Shaughnessy MA, Shaughnessy JJ, Patterson R. Safety and immunogenicity of immunotherapy with accelerated dosage schedules of polymerized grass and ragweed in patients with dual inhalant sensitivity. 1989;83:750-6
Grant JA (*see* McClean et al). 1989:83:738-41
Graziano FM (*see* Atkins et al). 1989;83:136-43
Green BJ (*see* Minuk et al). 1989;83:462-6
Greenstein S (*see* Storms et al). 1989;83:1083-90
Gross TP (*see* Gerstman et al). 1989;83:1032-9
Grossman J (*see* Kemp et al). 1989;83:697-702
Gurka G, Ohman J Jr, Rosenwasser LJ. Allergen-specific human T cell clones: derivation, specificity, and activation requirements. 1989;83:945-54

H

Hägglöf B (*see* Dahl et al). 1989;83:811-5
Hajjaoui A (*see* Bousquet et al). 1989;83:797-802
Håakansson L, Rak S, Dahl R, Venge P. The formation of eosinophil and neutrophil chemotactic activity during a pollen season and after allergen challenge. 1989;83:933-9
Hargreave FE. Late-phase asthmatic responses and airway inflammation. 1989;83:525-7 (Symposium)
—— (*see* Dolovich et al). 1989;83:521-4 (Symposium)
—— (*see* Juniper et al). 1989;83:627-33
Hedlin G (*see* Lilja et al). 1989;83:37-44
Heilborn H (*see* Lilja et al). 1989;83:37-44
Hemmendinger S, Pauli G, Tenabene A, Pujol JL, Bessot JC, Eber M, Cazenave J-P. Platelet function: aggregation by PAF or sequestration in lung is not modified during immediate or late allergen-induced bronchospasm in man. 1989;83:990-6
Herlin T (*see* Fogh et al). 1989;83:450-5
Heymann PW, Chapman MD, Aalberse RC, Fox JW, Platts-Mills TAE. Antigenic and structural analysis of group II allergens (*Der f* II and *Der p* II) from house dust mites (*Dermatophagoides* spp). 1989;83:1055-67
Hirshman CA (*see* Turner et al). 1989;83:643-8
Holgate ST, Finnerty JP. Antihistamines in asthma. 1989;83:537-47 (Symposium)
—— (*see* Daxun et al). 1989;83:152-8
Hopp RJ (*see* Townley et al). 1989;83:997-1010 (CME article)
Horak F (*see* Bruttmann et al). 1989;83:411-6
Horner WE, Ibanez MD, Lehrer SB. Immunoprint analysis of *Calvatia cyathiformis* allergens. I. Reactivity with individual sera. 1989;83:784-92
Howland WC III, Simon RA. Sulfite-treated lettuce challenges in sulfite-sensitive subjects with asthma. 1989;83:1079-82
Hoyet C (*see* Le Mao et al). 1989;83:926-33
Huston DP (*see* Bressler et al). 1989;83:756-63

I

Ibanez MD (*see* Horner et al). 1989;83:784-92
Iikura Y (*see* Nagakura et al). 1989;83:656-62
Impson LK (*see* Fire Ant Subcommittee of the American Academy of Allergy and Immunology). 1989;83:1107-11
Indrisano J (*see* Keahey et al). 1989;83:669-76
International Workshop, Platts-Mills TAE, de Weck AL. Dust mite allergens and asthma—a worldwide problem. 1989;83:416-27
Ispano M (*see* Ortolani et al). 1989;83:683-90

J

Jacobs R (*see* McBride et al). 1989;83:374-80
Jaggi KS, Ekramoddoullah AKM, Kisil FT, Dzuba-Fischer JMM, Rector ES, Sehon AH. Identification of two distinct allergenic sites on ryegrass-pollen allergen, *Lol p* IV. 1989;83:845-52
Jarmoszuk I (*see* Storms et al). 1989;83:1083-90
Jarosch B (*see* Baur et al). 1989;83:839-44
Jeha SC (*see* Gorin et al). 1989;83:5-10
Jin Z, Cleveland RP, Kaufman DB. Immunodeficiency in patients with hemophilia: an underlying deficiency and lack of correlation with factor replacement therapy or exposure to human immunodeficiency virus. 1989;83:165-70
Johansson SGO (*see* van Hage-Hamsten and Johansson). 1989;83:581-9
Joos GF, Pauwels RA, Van Der Straeten ME. The effect of nedocromil sodium on the bronchoconstrictor effect of neurokinin A in subjects with asthma. 1989;83:663-8
Jordana M (*see* Dolovich et al). 1989;83:521-4 (Symposium)
Jörres R (*see* Magnussen et al). 1989;83:467-71
Juniper EF, Kline PA, Hargreave FE, Dolovich J. Comparison of beclomethasone dipropionate aqueous nasal spray, astemizole, and the combination in the prophylactic treatment of ragweed pollen–induced rhinoconjunctivitis. 1989;83:627-33

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K

Kagey-Sobotka A (*see* Charlesworth et al). 1989;83:905-12
—— (*see* Van Metre et al). 1989;83:888-99
Kaliner M. Asthma and mast cell activation. 1989;83:510-20 (Symposium)
—— (*see* Keahey et al). 1989;83:669-76
—— (*see* Keffer et al). 1989;83:595-601
—— (*see* McBride et al). 1989;83:374-80
—— (*see* Raphael et al). 1989;83:110-5
Katsutani T (*see* Jyo et al). 1989;83:386-93
Katz RM (*see* Rachelefsky et al). 1989;83:1139 (Letter)
Kauffman HF, Koëter GH, van der Heide S, de Monchy JGR, Kloprogge E, de Vries K. Cellular and humoral observations in a patient with allergic bronchopulmonary aspergillosis during a nonasthmatic exacerbation. 1989;83:829-38
—— (*see* Kloprogge et al). 1989;83:393-400
Kaufman DB (*see* Jin et al). 1989;83:165-70
Kay AB (*see* Kurihara et al). 1989;83:83-90
Keahey TM, Indrisano J, Kaliner MA. Dissociation of cutaneous vascular permeability and the development of cutaneous late-phase allergic reactions. 1989;83:669-76
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Khattignavong A (*see* Van Metre et al). 1989;83:888-99
Kim CS (*see* Donna et al). 1989;83:456-61
Kisil FT (*see* Jaggi et al). 1989;83:845-52
Klauck MJ (*see* Swanson et al). 1989;83:776-83
Kline PA (*see* Juniper et al). 1989;83:627-33
Kloprogge E, de Leeuw AJ, de Monchy JGR, Kauffman HF. Hypodense eosinophilic granulocytes in normal individuals and patients with asthma: generation of hypodense cell populations in vitro. 1989;83:393-400
—— (*see* Kauffman et al). 1989;83:829-38
Kodomari N (*see* Jyo et al). 1989;83:386-93
Kodomari Y (*see* Jyo et al). 1989;83:386-93
Koenig JQ (*see* McManus et al). 1989;83:619-26
Koëter GH (*see* Kauffman et al). 1989;83:829-38
Komiyama A (*see* Yamazaki et al). 1989;83:967-72
Kragballe K (*see* Fogh et al). 1989;83:450-5
Kuna P, Alam R, Kuzminska B, Rozniecki J. The effect of preseasonal immunotherapy on the production of histamine-releasing factor (HRF) by mononuclear cells from patients with seasonal asthma: results of a double-blind, placebo-controlled, randomized study. 1989;83:816-24
Kunkel G (*see* Bruttmann et al). 1989;83:411-6
Kurihara K, Wardlaw AJ, Moqbel R, Kay AB. Inhibition of platelet-activating factor (PAF)-induced chemotaxis and PAF binding to human eosinophils and neutrophils by the specific ginkgolide-derived PAF antagonist, BN 52021. 1989;83:83-90
Kuwabara W (*see* Jyo et al). 1989;83:386-93
Kuzminska B (*see* Kuna et al). 1989;83:816-24

L

LaBrecque JF (*see* Strunk et al). 1989;83:17-25
Lad P (*see* Meltzer et al). 1989;83:960-6
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Lanner A (*see* Taudorf et al). 1989;83:589-94
Lantner R (*see* Reisman and Lantner). 1989;83:1049-54
L'Archevêque J (*see* Malo et al). 1989;83:159-65
Laursen L (*see* Taudorf et al). 1989;83:589-94
Lazarus SC (*see* Sommerhoff et al). 1989;83:441-9
Lee TH (*see* Arm et al). 1989;83:649-55
—— (*see* O'Hickey et al). 1989;83:472-6
Lehrer SB (*see* Horner et al). 1989;83:784-92
—— (*see* Morgan et al). 1989;83:1112-7
Lejoly M (*see* Van Hoeyveld et al). 1989;83:601-9
Lemanske RF (*see* Kemp et al). 1989;83:697-702
Le Mao J, Pauli G, Tekaia F, Hoyet C, Bischoff E, David B. Guanine content and *Dermatophagoides pteronyssinus* allergens in house dust samples. 1989;83:926-33
Lerner JA, Szefler SJ, Bender B. Regarding the article by Furukawa et al. 1989;83:1141-2 (Letter)
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Lett-Brown MA (*see* McClean et al). 1989;83:738-41
Leung P (*see* Bolinger et al). 1989;83:123-6
Levison H (*see* Zimmerman et al). 1989;83:1139 (Letter reply)
Lichtenstein LM (*see* Charlesworth et al). 1989;83:905-12
—— (*see* Freeland et al). 1989;83:634-42
Lilja G, Sundin B, Graff-Lonnevig V, Hedlin G, Heilborn H, Norrlind K, Pegelow K-O, Løwenstein H. Immunotherapy with cat- and dog-dander extracts. IV. Effects of 2 years of treatment. 1989;83:37-44
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Lobefalo G (*see* D'Amato and Lobefalo). 1989;83:116-22
Loria RC, Finnerty N, Wedner HJ. Successful use of aztreonam in a patient who failed oral penicillin desensitization. 1989;83:735-7
Løwenstein H (*see* Arntzen et al). 1989;83:66-82
—— (*see* Lilja et al). 1989;83:37-44
—— (*see* Matthiesen et al). 1989;83:1124-34
Luskin AT (*see* Luskin et al). 1989;83:406-11

Luskin SS, Fitzsimmons WE, MacLeod CM, Luskin AT. Pharmacokinetic evaluation of the terfenadine-theophylline interaction. 1989;83:406-11
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M

Maasch HJ (*see* Arntzen et al). 1989;83:66-82
Maccarrone C (*see* Crimi et al). 1989;83:921-5
Machiels J (*see* Somville et al). 1989;83:486-94
MacLeod CM (*see* Luskin et al). 1989;83:406-11
Macy E, Bulpitt K, Champlin RE, Saxon A. Anaphylaxis to infusion of autologous bone marrow: an apparent reaction to self, mediated by IgE antibody to bovine serum albumin. 1989;83:871-5
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Magri GC (*see* Ortolani et al). 1989;83:683-90
Maheut M (*see* Bousquet et al). 1989;83:825-8
Mäkinen-Kiljunen A (*see* Arntzen et al). 1989;83:66-82
Malo J-L, L'Archevêque J, Cartier A. Significant changes in nonspecific bronchial responsiveness after isolated immediate bronchospecific reactions caused by isocyanates but not after a late reaction caused by plicatic acid. 1989;83:159-65
Malveaux FJ. Asthma care for the indigent. 1989;83:1029-31 (Editorial)
Manning P (*see* Cockcroft et al). 1989;83:913-20
Mansfield LE (*see* Kemp et al). 1989;83:697-702
Marsh DG (*see* Van Metre et al). 1989;83:888-99
—— (*see* Zwollo et al). 1989;83:45-54
Martin ME (*see* Fling et al). 1989;83:101-9
Masaki T (*see* Nagakura et al). 1989;83:656-62
Mathé AA (*see* Leslie and Mathé). 1989;83:94-101
Matheson DS (*see* Minuk et al). 1989;83:462-6
Matsuoka T (*see* Yamazaki et al). 1989;83:967-72
Matthiesen F, Schumacher MJ, Løwenstein H. An immunoelectrophoretic analysis of the allergens of *Cynodon dactylon* (Bermuda grass) pollen. 1989;83:1124-34
McBride P, Jacobs R, Bradley D, Kaliner M. Use of plasma histamine levels to monitor cutaneous mast cell degranulation. 1989;83:374-80
McClean SP, Arreaza EE, Lett-Brown MA, Grant JA. Refractory cholinergic urticaria successfully treated with ketotifen. 1989;83:738-41
McCusker MT, Chung KF, Roberts NM, Barnes PJ. Effect of topical capsaicin on the cutaneous responses to inflammatory mediators and to antigen in man. 1989;83:1118-24
McGeady SJ (*see* Storms et al). 1989;83:1083-90
McLoughlin JA (*see* Creer and McLoughlin). 1989;83:1027-9 (Editorial)
McManus MS, Koenig JQ, Altman LC, Pierson WE. Pulmonary effects of sulfur dioxide exposure and ipratropium bromide pretreatment in adults with nonallergic asthma. 1989;83:619-26
Melani M (*see* Lesourd et al). 1989;83:572-80
Meltzer S, Goldberg B, Lad P, Easton J. Superoxide generation and its modulation by adenosine in the neutrophils of subjects with asthma. 1989;83:960-6
Menz G (*see* Baur et al). 1989;83:839-44
Metcalfe DD (*see* Keffer et al). 1989;83:595-601
—— (*see* Kettelhut et al). 1989;83:866-70
—— (*see* Nagpal et al). 1989;83:26-36
Michel FB (*see* Bousquet et al). 1989;83:797-802
—— (*see* Bousquet et al). 1989;83:825-8
Minuk GY, Boyd ND, Matheson DS, Fritzler MJ, Green BJ. Serum immunoglobulin E levels in patients with primary biliary cirrhosis. 1989;83:462-6
Mion Ch (*see* Bousquet et al). 1989;83:825-8
Miranda A (*see* Blanca et al). 1989;83:381-5
Mistretta A (*see* Crimi et al). 1989;83:921-5
Moqbel R (*see* Kurihara et al). 1989;83:83-90
Morel AM, Delaage MA. Immunoanalysis of histamine through a novel chemical derivatization (1988;82:646-54). 1989;83:704-5 (Correction)
Morgan JE, O'Neil CE, Daul CB, Lehrer SB. Species-specific shrimp allergens: RAST and RAST-inhibition studies. 1989;83:1112-7
Morton AR, Scott CA, Fitch KD. The effects of theophylline on the physical performance and work capacity of well-trained athletes. 1989;83:55-61
——, ——, ——. Rimiterol and the prevention of exercise-induced asthma. 1989;83:61-5
Moss RB. Regarding article by Earl and Sullivan. 1989;83:1138 (Letter)
—— (*see* Fling et al). 1989;83:101-9
Moulias R (*see* Lesourd et al). 1989;83:563-71
—— (*see* Lesourd et al). 1989;83:572-80
Mrazek DA (*see* Strunk et al). 1989;83:17-25
Mullins RJ, Olson LG, Sutherland DC. Nasal histamine challenges in symptomatic allergic rhinitis. 1989;83:955-9
Murdock KY (*see* Cockcroft et al). 1989;83:913-20
Murphy S (*see* Kemp et al). 1989;83:697-702

N

Naclerio RM (*see* Freeland et al). 1989;83:634-42
Nagai H (*see* Nagakura et al). 1989;83:656-62
Nagakura H (*see* Nagakura et al). 1989;83:656-62
Nagakura T, Iikura Y, Onda T, Masaki T, Endo T, Nagakura H, Nagai H. Release of high-molecular-weight neutrophil chemotactic activity from resected human nasal turbinate after antigen challenge. 1989;83:656-62
Nagpal S, Rajappa L, Metcalfe DD, Subba Rao PV. Isolation and characterization of heat-stable allergens from shrimp *(Penaeus indicus)*. 1989;83:26-36
Nathan RA (*see* Storms et al). 1989;83:1083-90
Nelson HS (*see* Vichyanond and Nelson). 1989;83:1101-6
—— (*see* Zunich et al). 1989;83:428-34
Newth CJL (*see* Bolinger et al). 1989;83:123-6
Norman PS (*see* Charlesworth et al). 1989;83:905-12
Norman PS Jr (*see* Van Metre et al). 1989;83:888-99
—— (*see* Weiss et al). 1989;83:1040-8
Norrlind K (*see* Lilja et al). 1989;83:37-44

O

O'Byrne PM (*see* Cockcroft et al). 1989;83:913-20
O'Hickey SP, Arm JP, Rees PJ, Lee TH. Airway responsiveness to methacholine after inhalation of nebulized hypertonic saline in bronchial asthma. 1989;83:472-6
Ohman J Jr (*see* Gurka et al). 1989;83:945-54
Ohnishi M, Ruhno J, Bienenstock J, Dolovich J, Denburg JA. Hematopoietic growth factor production by cultured cells of human nasal polyp epithelial scrapings: kinetics, cell source, and relationship to clinical status. 1989;83:1091-100
Oka S (*see* Jyo et al). 1989;83:386-93
Oliveri R (*see* Crimi et al). 1989;83:921-5
Olson LG (*see* Mullins et al). 1989;83:955-9
Onda T (*see* Nagakura et al). 1989;83:656-62

O'Neil CE (*see* Morgan et al). 1989;83:1112-7
Ono K (*see* Jyo et al). 1989;83:386-93
Ortolani C, Ispano M, Pastorello EA, Ansaloni R, Magri GC. Comparison of results of skin prick tests (with fresh foods and commercial food extracts) and RAST in 100 patients with oral allergy syndrome. 1989;83:683-90
Osborne ML (*see* Sommerhoff et al). 1989;83:441-9
Otsuka T (*see* Jyo et al). 1989;83:386-93

P

Palermo B (*see* Crimi et al). 1989;83:921-5
Palermo F (*see* Crimi et al). 1989;83:921-5
Parker WA (*see* Fling et al). 1989;83:101-9
Pastorello EA (*see* Ortolani et al). 1989;83:683-90
Patel A (*see* Zunich et al). 1989;83:428-34
Patrick JE (*see* Bolinger et al). 1989;83:123-6
Patterson R (*see* Grammer et al). 1989;83:750-6
Pauli G (*see* Hemmendinger et al). 1989;83:990-6
—— (*see* Le Mao et al). 1989;83:926-33
Paupe J (*see* Lesourd et al). 1989;83:563-71
—— (*see* Lesourd et al). 1989;83:572-80
Pauwels RA. New aspects of the therapeutic potential of theophylline in asthma. 1989;83:548-53 (Symposium)
—— (*see* Joos et al). 1989;83:663-8
Pedersen B (*see* Dahl et al). 1989;83:811-5
Pegelow K-O (*see* Lilja et al). 1989;83:37-44
Pelikan Z, Pelikan-Filipek M. Cytologic changes in the nasal secretions during the immediate nasal response (1988;82:1103-12). 1989;83:870 (Correction)
——, ——. Cytologic changes in the nasal secretions during the late nasal response. 1989;83:1068-79
Pelikan-Filipek M (*see* Pelikan and Pelikan-Filipek). 1989;83:1068-79
Perez E (*see* Blanca et al). 1989;83:381-5
Peters SP (*see* Freeland et al). 1989;83:634-42
Pierson WE (*see* McManus et al). 1989;83:619-26
Pinnas JL (*see* Storms et al). 1989;83:1083-90
Pipkorn U (*see* Freeland et al) 1989;83:634-42
Platts-Mills TAE (*see* Heymann et al). 1989;83:1055-67
—— (*see* International Workshop et al). 1989;83:416-27
—— (*see* Pollart et al). 1989;83:875-82
Pollart SM, Chapman MD, Fiocco GP, Rose G, Platts-Mills TAE. Epidemiology of acute asthma: IgE antibodies to common inhalant allergens as a risk factor for emergency room visits. 1989;83:875-82
Polosa R (*see* Crimi et al). 1989;83:921-5
Powell M (*see* Bolinger et al). 1989;83:123-6
Pujol JL (*see* Hemmendinger et al). 1989;83:990-6

R

Rachelefsky GS, Siegel SC, Katz RM, Spector SL, Rohr AS. Regarding the article by Zimmerman et al. 1989;83:1139 (Letter)
Rafferty P (*see* Daxun et al). 1989;83:152-8
Rajappa L (*see* Nagpal et al). 1989;83:26-36
Rak S (*see* Håakansson et al). 1989;83:933-9
Randlev B (*see* Busse et al). 1989;83:400-5
Rankin JA. The contribution of alveolar macrophages to hyperreactive airway disease . 1989;83:722-9 (Postgrad. course)
Raphael G, Raphael MH, Kaliner M. Gustatory rhinitis: a syndrome of food-induced rhinorrhea. 1989;83:110-5
Raphael MH (*see* Raphael et al). 1989;83:110-5
Ratner PH (*see* Kemp et al). 1989;83:697-702
Ratnoff WD (*see* Atkins et al). 1989;83:136-43
—— (*see* Shalit et al). 1989;83:691-6
Rector ES (*see* Jaggi et al). 1989;83:845-52
Reed CE (*see* Swanson et al). 1989;83:776-83
Rees PJ (*see* O'Hickey et al). 1989;83:472-6
Reese ME (*see* Kemp et al). 1989;83:697-702
Reid MJ (*see* Fling et al). 1989;83:101-9
Reisman RE, Lantner R. Further observations of stopping venom immunotherapy: comparison of patients stopped because of a fall in serum venom–specific IgE to insignificant levels with patients stopped prematurely by self-choice. 1989;83:1049-54
Reuss G (*see* Magnussen et al). 1989;83:467-71
Rhoades RB (*see* Fire Ant Subcommittee of the American Academy of Allergy and Immunology). 1989;83:1107-11
Richards R (*see* Daxun et al). 1989;83:152-8
Rivory J-P (*see* Bousquet et al). 1989;83:825-8
Roberts NM (*see* McCusker et al). 1989;83:1118-24
Rogenes PR (*see* Kemp et al). 1989;83:697-702
Rohr AS (*see* Rachelefsky et al). 1989;83:1139 (Letter)
Rose G (*see* Pollart et al). 1989;83:875-82
Rosenbaum R (*see* Boey et al). 1989;83:978-84
Rosenberg GL (*see* Van Metre et al). 1989;83:888-99
Rosenblatt HM (*see* Gorin et al). 1989;83:5-10
Rosenwasser LJ (*see* Gurka et al). 1989;83:945-54
Rozniecki J (*see* Kuna et al). 1989;83:816-24
Ruff ME (*see* Fling et al). 1989;83:101-9
Ruhno J (*see* Ohnishi et al). 1989;83:1091-100

S

Saint-Remy J-MR (*see* Somville et al). 1989;83:486-94
Sainte-Laudy J (*see* Lesourd et al). 1989;83:563-71
—— (*see* Lesourd et al). 1989;83:572-80
Sampson HA (*see* Bernhisel-Broadbent and Sampson). 1989;83:435-40
—— (*see* Turner et al). 1989;83:643-8
Saxon A (*see* Macy et al). 1989;83:871-5
Scheinmann P (*see* Lesourd et al). 1989;83:563-71
—— (*see* Lesourd et al). 1989;83:572-80
Schleimer RP (*see* Freeland et al). 1989;83:634-42
Schmitz-Schumann M (*see* Baur et al). 1989;83:839-44
Schoch Chr (*see* Baur et al). 1989;83:839-44
Schumacher MJ. Rhinomanometry. 1989;83:711-8 (CME article)
—— (*see* Matthiesen et al). 1989;83:1124-34
Scott CA (*see* Morton et al). 1989;83:55-61
—— (*see* Morton et al). 1989;83:61-5
Sedgwick J (*see* Busse et al). 1989;83:400-5
Sehon AH (*see* Jaggi et al). 1989;83:845-52
Selner JC (*see* Zedalis et al). 1989;83:973-8
Shalit M, Valone FH, Atkins PC, Ratnoff WD, Goetzl EJ, Zweiman B. Late appearance of phospholipid platelet-activating factor and leukotriene B_4 in human skin after repeated antigen challenge. 1989;83:691-6
Sharon GE (*see* Langlois et al). 1989;83:11-6
Shaughnessy JJ (*see* Grammer et al). 1989;83:750-6
Shaughnessy MA (*see* Grammer et al). 1989;83:750-6
Shaw MM (*see* Gerstman et al). 1989;83:1032-9
Shearer WT (*see* Gorin et al). 1989;83:5-10
Sheffer AL. Allergy: at the academic/clinical interface. 1989;83:1-4 (Pres. address)
Shigeta S (*see* Jyo et al). 1989;83:386-93
Siegel SC (*see* Rachelefsky et al). 1989;83:1139 (Letter)
Simon RA (*see* Howland and Simon). 1989;83:1079-82
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Somville MA, Machiels J, Gilles JGG, Saint-Remy J-MR. Seasonal variation in specific IgE antibodies of grass-pollen hypersensitive patients depends on the steady state IgE concentration and is not related to clinical symptoms. 1989;83:486-94
Sowell K (*see* Bressler et al). 1989;83:756-63
Spaner D, Dolovich J, Tarlo S, Sussman G, Buttoo K. Hypersensitivity to natural latex. 1989;83:1135-7
Spannhake EW (*see* Turner et al). 1989;83:643-8
Spector SL (*see* Kemp et al). 1989;83:697-702
—— (*see* Rachelefsky et al). 1989;83:1139 (Letter)
Stafford CT (*see* Fire Ant Subcommittee of the American Academy of Allergy and Immunology). 1989;83:1107-11
Stapel SO (*see* van Ree et al). 1989;83:144-51
Stevens EAM (*see* Van Hoeyveld et al). 1989;83:601-9
Storms WW, Bodman SF, Nathan RA, Cravinsky P, Banov CH, Dockhorn RJ, Jarmoszuk I, Zeitz HJ, McGeady SJ, Pinnas JL, Greenstein S. SCH 434: a new antihistamine/decongestant for seasonal allergic rhinitis. 1989;83:1083-90
Strömberg R (*see* Arntzen et al). 1989;83:66-82
Strunk RC. Identification of the fatality-prone subject with asthma. 1989;83:477-85
——, Fukuhara JT, LaBrecque JF, Mrazek DA. Outcome of long-term hospitalization for asthma in children. 1989;83:17-25
Suau R (*see* Blanca et al). 1989;83:381-5
Subba Rao PV (*see* Nagpal et al). 1989;83:26-36
Sugimoto SL (*see* Lang et al). 1989;83:802-10
Sullivan MP (*see* Gorin et al). 1989;83:5-10
Sullivan TJ. Dr. Sullivan's response to Dr. Toogood's editorial. 1989;83:706 (Letter)
Summerell S (*see* Daxun et al). 1989;83:152-8
Sundin B (*see* Lilja et al). 1989;83:37-44
Sussman G (*see* Spaner et al). 1989;83:1135-7
Sutherland DC (*see* Mullins et al). 1989;83:955-9
Swanson MC, Campbell AR, Klauck MJ, Reed CE. Correlations between levels of mite and cat allergens in settled and airborne dust. 1989;83:776-83
Symchowicz S (*see* Bolinger et al). 1989;83:123-6
Szefler SJ (*see* Lerner et al). 1989;83:1141-2 (Letter)

T

Tarlo S (*see* Spaner et al). 1989;83:1135-7
Taudorf E, Laursen L, Lanner A, Björkstén B, Dreborg S, Weeke B. Specific IgE, IgG, and IgA antibody response to oral immunotherapy in birch pollinosis. 1989;83:589-94
Tekaia F (*see* Le Mao et al). 1989;83:926-33
Tenabene A (*see* Hemmendinger et al). 1989;83:990-6
Tennina S (*see* Boulet et al). 1989;83:882-7
Terrados S (*see* Blanca et al). 1989;83:381-5
Thiollet M (*see* Lesourd et al). 1989;83:563-71
Thompson WO (*see* Fire Ant Subcommittee of the American Academy of Allergy and Immunology). 1989;83:1107-11
Tinkelman DG (*see* Kemp et al). 1989;83:697-702
Tomita DK (*see* Gerstman et al). 1989;83:1032-9
Toogood JH. Dr. Sullivan's response to Dr. Toogood's editorial. 1989;83:706-7 (Letter reply)
——. High-dose inhaled steroid therapy for asthma. 1989;83:528-36 (Symposium)
Torres MJ (*see* Blanca et al). 1989;83:381-5
Townley RG, Hopp RJ, Agrawal DK, Bewtra AK. Platelet-activating factor and airway reactivity. 1989;83:997-1010 (CME article)
—— (*see* Akagi and Townley). 1989;83:742-9
Trent P (*see* Weiss et al). 1989;83:1040-8
Tsuboi S (*see* Jyo et al). 1989;83:386-93
Turcotte H (*see* Boulet et al). 1989;83:882-7
Turner CR, Darowski MJ, Sampson HA, Spannhake EW, Hirshman CA. Dermal mast cell releasability and end organ responsiveness in atopic and nonatopic dogs. 1989;83:643-8

V

Valenzano M (*see* Atkins et al). 1989;83:136-43
Valone FH (*see* Shalit et al). 1989;83:691-6
van der Heide S (*see* Kauffman et al). 1989;83:829-38
Van Der Straeten ME (*see* Joos et al) 1989;83:663-8
Vandewalker ML (*see* Lin et al). 1989;83:793-6
van Hage-Hamsten M, Johansson SGO. Clinical significance and allergenic cross-reactivity of *Euroglyphus maynei* and other non-pyroglyphid and pyroglyphid mites. 1989;83:581-9
Van Hoeyveld EM, Lejoly M, Walravens MJF, Stevens EAM. Analysis of the stabilizing effect of epsilon-aminocaproic acid by electrophoretic techniques and immunoblotting. 1989;83:601-9
Vanhoutte PM. Epithelium-derived relaxing factor(s) and bronchial reactivity. 1989;83:855-61 (Postgrad. course)
Van Metre TE Jr, Marsh DG, Adkinson NF Jr, Kagey-Sobotka A, Khattignavong A, Norman PS Jr, Rosenberg GL. Immunotherapy decreases skin sensitivity to cat extract. 1989;83:888-99
van Ree R, Clemens JGJ, Aalbers M, Stapel SO, Aalberse RC. Characterization with monoclonal and polyclonal antibodies of new major allergen from grass pollen in the group I molecular weight range. 1989;83:144-51
Vaughan TR (*see* Lin et al). 1989;83:793-6
Vega JM (*see* Blanca et al). 1989;83:381-5
Venge P (*see* Håakansson et al). 1989;83:933-9
Vichyanond P, Nelson HS. Circadian variation of skin reactivity and allergy skin tests. 1989;83:1101-6
Virchow Chr (*see* Baur et al). 1989;83:839-44

W

Walport MJ (*see* Arm et al). 1989;83:649-55
Walravens MJF (*see* Van Hoeyveld et al). 1989;83:601-9
Wanner A (*see* Donna et al). 1989;83:456-61
Wardlaw AJ (*see* Kurihara et al). 1989;83:83-90
Wass U, Belin L. Immunologic specificity of isocyanate-induced IgE antibodies in serum from 10 sensitized workers. 1989;83:126-35
Waterbury WE (*see* Weiss et al). 1989;83:1040-8
Weber RW (*see* Lin et al). 1989;83:793-6
—— (*see* Zedalis et al). 1989;83:973-8
Wedner HJ (*see* Loria et al). 1989;83:735-7
Weeke B (*see* Taudorf et al). 1989;83:589-94
Weinberger MM. Regarding the article by Furukawa et al. 1989;83:1139-40 (Letter)
Weiss ME, Trent P, Fisher R, Norman PS, Waterbury WE, Adkinson NF Jr. Rabbit $F(ab')_2$ antihuman IgE is a universal skin test reagent in the evaluation of skin mast cell degranulation in vivo. 1989;83:1040-8
Weiss W (*see* Baur et al). 1989;83:839-44
Whisman BA (*see* Fling et al). 1989;83:101-9
Wiener MB (*see* Zedalis et al). 1989;83:973-8
Wilhelmsen TW (*see* Arntzen et al). 1989;83:66-82
Winder J (*see* Zunich et al). 1989;83:428-34
Wittmann G (*see* Bruttmann et al). 1989;83:411-6
Witzke G (*see* Bork and Witzke). 1989;83:677-82
Wood RA, Chapman MD, Adkinson NF Jr, Eggleston PA. The effect of cat removal on allergen content in household-dust samples. 1989;83:730-4
Wright R (*see* Keffer et al). 1989;83:595-601

Y

Yamazaki M, Matsuoka T, Yasui K, Komiyama A, Akabane T. Dopamine inhibition of superoxide anion production by polymorphonuclear leukocytes. 1989;83:967-72
Yasui K (*see* Yamazaki et al). 1989;83:967-72
Young KYL (*see* Bolinger et al). 1989;83:123-6

Z

Zedalis D, Dolen WK, Glover GC, Wiener MB, Selner JC, Weber RW. Evaluation of nasal patency by fiberoptic rhinoscopy. 1989;83:973-8
Zeitz HJ (*see* Storms et al). 1989;83:1083-90
Zimmerman B, Forsyth S, Gold M. Highly atopic children: formation of IgE antibody to food protein, especially peanut. 1989;83:764-70
——, Levison H, Feanny S. Regarding the article by Zimmerman et al. 1989;83:1139 (Letter reply)
Zunich KM, Nelson HS, Patel A, Bodman S, Gilner D, Winder J. The effect of theophylline and enprofylline on the late cutaneous response to antigen and compound 48/80. 1989;83:428-34
Zuraw BL (*see* Lang et al). 1989;83:802-10
Zureikat G (*see* Bolinger et al). 1989;83:123-6
Zweiman B (*see* Atkins et al). 1989;83:136-43
—— (*see* Shalit et al). 1989;83:691-6
Zwollo P, Ansari AA, Marsh DG. Association of class II DNA restriction fragments with responsiveness to *Ambrosia artemisiifolia* (short ragweed)-pollen allergen *Amb a* V in ragweed-allergic patients. 1989;83:45-54

Subject Index*

A

Absorption
Influence of food on the absorption of albuterol Repetabs (Bolinger et al). 1989;83:123-6
Abstracts
Abstracts. 1989;83:171-311
Acarus siro
Clinical significance and allergenic cross-reactivity of *Euroglyphus maynei* and other nonpyroglyphid and pyroglyphid mites (van Hage-Hamsten and Johansson). 1989;83:581-9
Acquired immunodeficiency syndrome
Immunodeficiency in patients with hemophilia: an underlying deficiency and lack of correlation with factor replacement therapy or exposure to human immunodeficiency virus (Jin et al). 1989;83:165-70
Adenosine
Effect of indomethacin on adenosine-induced bronchoconstriction (Crimi et al). 1989;83:921-5
Superoxide generation and its modulation by adenosine in the neutrophils of subjects with asthma (Meltzer et al). 1989;83:960-5
Adenosine monophosphate
Airway refractoriness to adenosine 5′-monophosphate after repeated inhalation (Daxun et al). 1989;83:152-8
Administration, inhalation
Airway refractoriness to adenosine 5′-monophosphate after repeated inhalation (Daxun et al). 1989;83:152-8
Albuterol treatment for children with asthma: a comparison of inhaled powder and aerosol (Kemp et al). 1989;83:697-702
High-dose inhaled steroid therapy for asthma (Toogood). 1989;83:528-36 (Symposium)
Administration, oral
Influence of food on the absorption of albuterol Repetabs (Bolinger et al). 1989;83:123-6
Administration, topical
Effect of topical capsaicin on the cutaneous responses to inflammatory mediators and to antigen in man (McCusker et al). 1989;83:1118-24
Adolescence; *see also* **Pediatrics**
Outcome of long-term hospitalization for asthma in children (Strunk et al). 1989;83:17-25
Aerosols
Albuterol treatment for children with asthma: a comparison of inhaled powder and aerosol (Kemp et al). 1989;83:697-702
Comparative efficacy of salbutamol, ipratropium, and cromoglycate in the prevention of bronchospasm induced by exercise and hyperosmolar challenges (Boulet et al). 1989;83:882-7
Airway responsiveness; *see* **Respiratory hypersensitivity**
Albuterol
Albuterol treatment for children with asthma: a comparison of inhaled powder and aerosol (Kemp et al). 1989;83:697-702
Influence of food on the absorption of albuterol Repetabs (Bolinger et al). 1989;83:123-6
Allergens, analysis; *see also* **Allergens, isolation**; **Allergens, pharmacodynamics**
Allergen-specific human T cell clones: derivation, specificity, and activation requirements (Gurka et al). 1989;83:945-54
Antigenic and structural analysis of group II allergens (*Der f*II and *Der p*II) from house dust mites (*Dermatophagoides* spp) (Heymann et al). 1989;83:1055-67
Association of class II DNA restriction fragments with responsiveness to *Ambrosia artemisiifolia* (short ragweed)-pollen allergen *Amb a* V in ragweed-allergic patients (Zwollo et al). 1989;83:45-54
Correlations between levels of mite and cat allergens in settled and airborne dust (Swanson et al). 1989;83:776-83
Cytologic changes in the nasal secretions during the late nasal response (Pelikan and Pelikan-Filipek). 1989;83:1068-79
Dust mite allergens and asthma—a worldwide problem (International Workshop et al). 1989;83:416-27
The effect of cat removal on allergen content in household- dust samples (Wood et al). 1989;83:730-4
Guanine content and *Dermatophagoides pteronyssinus* allergens in house dust samples (Le Mao et al). 1989;83:926-33
An immunoelectrophoretic analysis of the allergens of *Cynodon dactylon* (Bermuda grass) pollen (Matthiesen et al). 1989;83:1124-34
Immunoprint analysis of *Calvatia cyathiformis* allergens. I.

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Reactivity with individual sera (Horner et al). 1989;83:784-92
Platelet function: aggregation by PAF or sequestration in lung is not modified during immediate or late allergen-induced bronchospasm in man (Hemmendinger et al). 1989;83:990-6

Allergens, classification
Characterization with monoclonal and polyclonal antibodies of new major allergen from grass pollen in the group I molecular weight range (van Ree et al). 1989;83:144-51

Allergens, diagnostic use; *see also* **Allergens, pharmacodynamics**
Epidemiology of acute asthma: IgE antibodies to common inhalant allergens as a risk factor for emergency room visits (Pollart et al). 1989;83:875-82

Allergens, isolation; *see also* **Allergens, analysis**
Allergenic pollens in the southern Mediterranean area (D'Amato and Lobefalo). 1989;83:116-22
Identification of two distinct allergenic sites on ryegrass- pollen allergen, *Lol p* IV (Jaggi et al). 1989;83:845-52
Isolation and characterization of heat-stable allergens from shrimp *(Penaeus indicus)* (Nagpal et al). 1989;83:26-36
Species-specific shrimp allergens: RAST and RAST-inhibition studies (Morgan et al). 1989;83:1112-7

Allergens, pharmacodynamics; *see also* **Allergens, diagnostic use**
Clinical significance and allergenic cross-reactivity of *Euroglyphus maynei* and other nonpyroglyphid and pyroglyphid mites (van Hage-Hamsten and Johansson). 1989;83:581-9
Immunotherapy in asthma (Creticos). 1989;83:554-62 (Symposium)
Significant changes in nonspecific bronchial responsiveness after isolated immediate bronchospecific reactions caused by isocyanates but not after a late reaction caused by plicatic acid (Malo et al). 1989;83:159-65
Theophylline does not inhibit allergen-induced increase in airway responsiveness to methacholine (Cockcroft et al). 1989;83:913-20

Allergens, physiology; *see also* **Allergens, analysis**
The formation of eosinophil and neutrophil chemotactic activity during a pollen season and after allergen challenge (Håakansson et al). 1989;83:933-9

Allergic bronchopulmonary aspergillosis; *see* **Aspergillosis, allergic bronchopulmonary**

Allergy; *see* **Hypersensitivity**

Alveoli; *see* **Pulmonary alveoli**

Ambrosia artemisiifolia
Association of class II DNA restriction fragments with responsiveness to *Ambrosia artemisiifolia* (short ragweed)-pollen allergen *Amb a* V in ragweed-allergic patients (Zwollo et al). 1989;83:45-54

American Academy of Allergy and Immunology
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6-Aminocaproic acid
Analysis of the stabilizing effect of epsilon-aminocaproic acid by electrophoretic techniques and immunoblotting (Van Hoeyveld et al). 1989;83:601-9

Anaphylaxis
Analysis of the wheal-and-flare reactions that follow the intradermal injection of histamine and morphine in adults with recurrent, unexplained anaphylaxis and systemic mastocytosis (Keffer et al). 1989;83:595-601
Anaphylaxis to infusion of autologous bone marrow: an apparent reaction to self, mediated by IgE antibody to bovine serum albumin (Macy et al). 1989;83:871-5
Modification of guinea pig lung anaphylaxis by central nervous system (CNS) perturbations (Leslie and Mathé). 1989;83:94-101

Angioedema; *see* **Angioneurotic edema**

Angioneurotic edema
Long-term prophylaxis with C1-inhibitor (C1 INH) concentrate in patients with recurrent angioedema caused by hereditary and acquired C1-inhibitor deficiency (Bork and Witzke). 1989;83:677- 82

Anions
Dopamine inhibition of superoxide anion production by polymorphonuclear leukocytes (Yamazaki et al). 1989;83: 967-72

Antibodies, monoclonal
Characterization with monoclonal and polyclonal antibodies of new major allergen from grass pollen in the group I molecular weight range (van Ree et al). 1989;83:144-51

Antibodies, polyclonal
Characterization with monoclonal and polyclonal antibodies of new major allergen from grass pollen in the group I molecular weight range (van Ree et al). 1989;83:144-51

Antibodies, therapeutic use; *see* **Immunotherapy**

Antibody formation
Highly atopic children: formation of IgE antibody to food protein, especially peanut (Zimmerman et al). 1989;83:764-70

Antibody specificity
Hymenoptera venom immunotherapy. I. Induction of T cell-mediated immunity by honeybee venom immunotherapy: relationships with specific antibody responses (Lesourd et al). 1989;83:563-71
Immunologic specificity of isocyanate-induced IgE antibodies in serum from 10 sensitized workers (Wass and Belin). 1989;83:126-35
Specific IgE, IgG, and IgA antibody response to oral immunotherapy in birch pollinosis (Taudorf et al). 1989;83:589-94

Antigens
Antigenic and structural analysis of group II allergens (*Der f*II and *Der p*II) from house dust mites (*Dermatophagoides* spp) (Heymann et al). 1989;83:1055-67
Effect of the oral leukotriene D_4 antagonist LY171883 on inhaled and intradermal challenge with antigen and leukotriene D_4 in atopic subjects (Fuller et al). 1989;83:939-44
Effect of topical capsaicin on the cutaneous responses to inflammatory mediators and to antigen in man (McCusker et al). 1989;83:1118-24
Identification of leukotriene B_4 as the neutrophil chemotactic factor released by antigen challenge from passively sensitized guinea pig lungs (Atkins et al). 1989;83:136-43
Late appearance of phospholipid platelet-activating factor and leukotriene B_4 in human skin after repeated antigen challenge (Shalit et al). 1989;83:691-6
Leukotriene B_4 as a mediator of early and late reactions to antigen in humans: the effect of systemic glucocorticoid treatment in vivo (Freeland et al). 1989;83:634-42

Antihemophilic factor; *see* **Factor VIII**

Antihistamines; *see* **Histamine antagonists**

Aspergillosis, allergic bronchopulmonary
Cellular and humoral observations in a patient with allergic bronchopulmonary aspergillosis during a nonasthmatic exacerbation (Kauffman et al). 1989;83:829-38
Immunoprint pattern in patients with allergic bronchopulmonary aspergillosis in different stages (Baur et al). 1989;83:839-44

Astemizole
Comparison of beclomethasone dipropionate aqueous nasal spray, astemizole, and the combination in the prophylactic

Astemizole—cont'd
treatment of ragweed pollen–induced rhinoconjunctivitis (Juniper et al). 1989;83:627-33
Asthma, drug therapy; *see also* specific agent
Albuterol treatment for children with asthma: a comparison of inhaled powder and aerosol (Kemp et al). 1989;83:697-702
Antihistamines in asthma (Holgate and Finnerty). 1989;83:537-47 (Symposium)
Duration of the effect of a single dose of azelastine on histamine-induced bronchoconstriction (Magnussen et al). 1989;83:467-71
The effect of azelastine on neutrophil and eosinophil generation of superoxide (Busse et al). 1989;83:400-5
The effect of nedocromil sodium on the bronchoconstrictor effect of neurokinin A in subjects with asthma (Joos et al). 1989;83:663-8
The effect of theophylline and enprofylline on the late cutaneous response to antigen and compound 48/80 (Zunich et al). 1989;83:428-34
The effects of theophylline on cognitive and behavioral performance (Creer and McLoughlin). 1989;83:1027-9 (Editorial)
High-dose inhaled steroid therapy for asthma (Toogood). 1989;83:528-36 (Symposium)
Immunotherapy in asthma (Creticos). 1989;83:554-62 (Symposium)
Immunotherapy with cat-and dog-dander extracts. IV. Effects of 2 years of treatment (Lilja et al). 1989;83:37-44
New aspects of the therapeutic potential of theophylline in asthma (Pauwels). 1989;83:548-53 (Symposium)
Nocturnal asthma: effect of treatment with oral sustained-release terbutaline, inhaled budesonide, and the two in combination (Dahl et al). 1989;83:811-5
Pulmonary effects of sulfur dioxide exposure and ipratropium bromide pretreatment in adults with nonallergic asthma (McManus et al). 1989;83:619-26
Asthma, epidemiology
Asthma care for the indigent (Malveaux). 1989;83:1029-31 (Editorial)
Epidemiology of acute asthma: IgE antibodies to common inhalant allergens as a risk factor for emergency room visits (Pollart et al). 1989;83:875-82
Prevalence and treatment of asthma in the Michigan Medicaid patient population younger than 45 years, 1980-1986 (Gerstman et al). 1989;83:1032-9
Asthma, exercise induced
Rimiterol and the prevention of exercise-induced asthma (Morton et al). 1989;83:61-5
Asthma, immunology
The formation of eosinophil and neutrophil chemotactic activity during a pollen season and after allergen challenge (Håakansson et al). 1989;83:933-9
Immunologic specificity of isocyanate-induced IgE antibodies in serum from 10 sensitized workers (Wass and Belin). 1989;83:126-35
Immunotherapy decreases skin sensitivity to cat extract (Van Metre et al). 1989;83:888-99
Seasonal variation in specific IgE antibodies of grass-pollen hypersensitive patients depends on the steady state IgE concentration and is not related to clinical symptoms (Somville et al). 1989;83:486-94
Superoxide generation and its modulation by adenosine in the neutrophils of subjects with asthma (Meltzer et al). 1989;83:960-6
Therapeutic effect and titers of the specific IgE and IgG antibodies in patients with sea squirt allergy (Hoya asthma) under a long-term hyposensitization with three sea squirt antigens (Jyo et al). 1989;83:386-93
Asthma, mortality
Identification of the fatality-prone subject with asthma (Strunk). 1989;83:477-85
Asthma, physiopathology
Airway refractoriness to adenosine 5′-monophosphate after repeated inhalation (Daxun et al). 1989;83:152-8
Airway responsiveness to methacholine after inhalation of nebulized hypertonic saline in bronchial asthma (O'Hickey et al). 1989;83:472-6
Asthma and mast cell activation (Kaliner). 1989;83:510-20 (Symposium)
Expression of complement receptors type 1 (CR1) and type 3 (CR3) on circulating granulocytes in experimentally provoked asthma (Arm et al). 1989;83:649-55
Heterogeneity of human eosinophils (Fukuda and Gleich). 1989;83:369-73 (Editorial)
Hypodense eosinophilic granulocytes in normal individuals and patients with asthma: generation of hypodense cell populations in vitro (Kloprogge et al). 1989;83:393-400
Late-phase airway reaction and inflammation (Dolovich et al). 1989;83:521-4 (Symposium)
Late-phase asthmatic responses and airway inflammation (Hargreave). 1989;83:525-7 (Symposium)
New concepts in the pathogenesis of bronchial hyperresponsiveness and asthma (Barnes). 1989;83:1013-26 (Postgrad. course)
Spontaneous histamine release and histamine content in normal subjects and subjects with asthma (Akagi and Townley). 1989;83:742-9
Sulfite-treated lettuce challenges in sulfite-sensitive subjects with asthma (Howland and Simon). 1989;83:1079-82
Symposium on inflammation in asthma: introduction (Fink). 1989;83:509 (Symposium)
Asthma, therapy
The effect of preseasonal immunotherapy on the production of histamine-releasing factor (HRF) by mononuclear cells from patients with seasonal asthma: results of a double-blind, placebo-controlled, randomized study (Kuna et al). 1989;83:816-24
Immunotherapy with a standardized *Dermatophagoides pteronyssinus* extract. III. Systemic reactions during the rush protocol in patients suffering from asthma (Bousquet et al). 1989;83:797-802
Outcome of long-term hospitalization for asthma in children (Strunk et al). 1989;83:17-25
Prevalence and treatment of asthma in the Michigan Medicaid patient population younger than 45 years, 1980-1986 (Gerstman et al). 1989;83:1032-9
Asthma,drug therapy
Effect of nedocromil sodium on the late asthmatic reaction to bronchial antigen challenge (Crimi et al). 1989;83:985-90
Athletics; *see* **Sports**
Atopic dermatitis; *see* **Dermatitis, atopic**
Atopic hypersensitivity; *see* **Hypersensitivity, immediate**
Atopy; *see* **Hypersensitivity, immediate**
Azelastine
Azelastine inhibits IgE-mediated human basophil histamine release (Little and Casale). 1989;83:862-5
Duration of the effect of a single dose of azelastine on histamine-induced bronchoconstriction (Magnussen et al). 1989;83:467-71
The effect of azelastine on neutrophil and eosinophil generation of superoxide (Busse et al). 1989;83:400-5
The interaction of azelastine with human lung histamine H_1, beta,

and muscarinic receptor–binding sites (Casale). 1989;83:771-6

B

Basidiomycetes
Immunoprint analysis of *Calvatia cyathiformis* allergens. I. Reactivity with individual sera (Horner et al). 1989;83:784-92

Basophils
Azelastine inhibits IgE-mediated human basophil histamine release (Little and Casale). 1989;83:862-5

Beclomethasone
Comparison of beclomethasone dipropionate aqueous nasal spray, astemizole, and the combination in the prophylactic treatment of ragweed pollen–induced rhinoconjunctivitis (Juniper et al). 1989;83:627-33

Bee venoms
Hymenoptera venom immunotherapy. I. Induction of T cell-mediated immunity by honeybee venom immunotherapy: relationships with specific antibody responses (Lesourd et al). 1989;83:563-71
Hymenoptera venom immunotherapy. II. T proliferative and T suppressive activities induced by *Vespula* immunotherapy: effects on long-term antibody responses (Lesourd et al). 1989;83:572-80

Bees
Hypereosinophilia, neurologic, and gastrointestinal symptoms after bee-pollen ingestion (Lin et al). 1989;83:793-6

Behavior, child; *see* **Child behavior**

Bermuda grass; *see* **Pollen**

Biliary cirrhosis; *see* **Liver cirrhosis, biliary**

Blood coagulation factors
Immunodeficiency in patients with hemophilia: an underlying deficiency and lack of correlation with factor replacement therapy or exposure to human immunodeficiency virus (Jin et al). 1989;83:165-70

Blood platelets
Platelet function: aggregation by PAF or sequestration in lung is not modified during immediate or late allergen-induced bronchospasm in man (Hemmendinger et al). 1989;83:990-6

Bone marrow, transplantation
Anaphylaxis to infusion of autologous bone marrow: an apparent reaction to self, mediated by IgE antibody to bovine serum albumin (Macy et al). 1989;83:871-5

Bronchi, physiopathology; *see* **Asthma, physiopathology**
New concepts in the pathogenesis of bronchial hyperresponsiveness and asthma (Barnes). 1989;83:1013-26 (Postgrad. course)

Bronchial provocation tests
Airway refractoriness to adenosine 5′-monophosphate after repeated inhalation (Daxun et al). 1989;83:152-8
Effect of nedocromil sodium on the late asthmatic reaction to bronchial antigen challenge (Crimi et al). 1989;83:985-90

Bronchial spasm; *see also* **Asthma, physiopathology**
Comparative efficacy of salbutamol, ipratropium, and cromoglycate in the prevention of bronchospasm induced by exercise and hyperosmolar challenges (Boulet et al). 1989;83:882-7
Effect of indomethacin on adenosine-induced bronchoconstriction (Crimi et al). 1989;83:921-5
Epithelium-derived relaxing factor(s) and bronchial reactivity (Vanhoutte). 1989;83:855-61 (Postgrad. course)
Platelet function: aggregation by PAF or sequestration in lung is not modified during immediate or late allergen-induced bronchospasm in man (Hemmendinger et al). 1989;83:990-6
Significant changes in nonspecific bronchial responsiveness after isolated immediate bronchospecific reactions caused by isocyanates but not after a late reaction caused by plicatic acid (Malo et al). 1989;83:159-65

Bronchoalveolar lavage fluid
Functional and morphologic characterization of mast cells recovered by bronchoalveolar lavage from Basenji greyhound and mongrel dogs (Sommerhoff et al). 1989;83:441-9

Bronchospasm; *see* **Bronchial spasm**

Budesonide
Nocturnal asthma: effect of treatment with oral sustained-release terbutaline, inhaled budesonide, and the two in combination (Dahl et al). 1989;83:811-5

Burkitt's lymphoma
Burkitt's lymphoma developing in a 7-year-old boy with hyper-IgE syndrome (Gorin et al). 1989;83:5-10

Butyrophenones
Pharmacokinetic evaluation of the terfenadine-theophylline interaction (Luskin et al). 1989;83:406-11

C

Calvatia cyathiformis
Immunoprint analysis of *Calvatia cyathiformis* allergens. I. Reactivity with individual sera (Horner et al). 1989;83:784-92

Capillary permeability
Dissociation of cutaneous vascular permeability and the development of cutaneous late-phase allergic reactions (Keahey et al). 1989;83:669-76

Capsaicin
Effect of topical capsaicin on the cutaneous responses to inflammatory mediators and to antigen in man (McCusker et al). 1989;83:1118-24

Cats
Correlations between levels of mite and cat allergens in settled and airborne dust (Swanson et al). 1989;83:776-83
The effect of cat removal on allergen content in household-dust samples (Wood et al). 1989;83:730-4
Immunotherapy decreases skin sensitivity to cat extract (Marsh et al). 1989;83:888-99

Cells, cultured
Hematopoietic growth factor production by cultured cells of human nasal polyp epithelial scrapings: kinetics, cell source, and relationship to clinical status (Ohnishi et al). 1989;83:1091-100

Central nervous system
Modification of guinea pig lung anaphylaxis by central nervous system (CNS) perturbations (Leslie and Mathé). 1989;83:94-101

Central nervous system diseases
Plasma concentrations of complement-activation complexes correlate with disease activity in patients diagnosed with isolated central nervous system vasculitis (Langlois et al). 1989;83:11-6

Cephalosporins
Cross-reactivity between penicillins and cephalosporins: clinical and immunologic studies (Blanca et al). 1989;83:381-5

Cetirizine
Effect of cetirizine on mast cell-mediator release and cellular traffic during the cutaneous late-phase reaction (Charlesworth et al). 1989;83:905-12

Chemotactic factors
The formation of eosinophil and neutrophil chemotactic activity during a pollen season and after allergen challenge (Håakansson et al). 1989;83:933-9
Identification of leukotriene B_4 as the neutrophil chemotactic

Chemotactic factors—cont'd
factor released by antigen challenge from passively sensitized guinea pig lungs (Atkins et al). 1989;83:136-43
Release of high-molecular-weight neutrophil chemotactic activity from resected human nasal turbinate after antigen challenge (Nagakura et al). 1989;83:656-62
Chemotactic factors, eosinophil
The formation of eosinophil and neutrophil chemotactic activity during a pollen season and after allergen challenge (Håakansson et al). 1989;83:933-9
Inhibition of platelet-activating factor (PAF)-induced chemotaxis and PAF binding to human eosinophils and neutrophils by the specific ginkgolide-derived PAF antagonist, BN 52021 (Kurihara et al). 1989;83:83-90
Chemotaxis, leukocyte
Release of high-molecular-weight neutrophil chemotactic activity from resected human nasal turbinate after antigen challenge (Nagakura et al). 1989;83:656-62
Child; *see* **Pediatrics**
Child behavior
The effects of theophylline on cognitive and behavioral performance (Creer and McLoughlin). 1989;83:1027-9 (Editorial)
Chronobiology
Circadian variation of skin reactivity and allergy skin tests (Vichyanond and Nelson). 1989;83:1101-6
Circadian rhythm
Circadian variation of skin reactivity and allergy skin tests (Vichyanond and Nelson). 1989;83:1101-6
Clone cells
Allergen-specific human T cell clones: derivation, specificity, and activation requirements (Gurka et al). 1989;83:945-54
Cognition
The effects of theophylline on cognitive and behavioral performance (Creer and McLoughlin). 1989;83:1027-9 (Editorial)
Complement 1
Expression of complement receptors type 1 (CR1) and type 3 (CR3) on circulating granulocytes in experimentally provoked asthma (Arm et al). 1989;83:649-55
Complement 1 inactivators, deficiency
Long-term prophylaxis with C1-inhibitor (C1 INH) concentrate in patients with recurrent angioedema caused by hereditary and acquired C1-inhibitor deficiency (Bork and Witzke). 1989;83:677- 82
Complement 3
Expression of complement receptors type 1 (CR1) and type 3 (CR3) on circulating granulocytes in experimentally provoked asthma (Arm et al). 1989;83:649-55
Complement activation
Plasma concentrations of complement-activation complexes correlate with disease activity in patients diagnosed with isolated central nervous system vasculitis (Langlois et al). 1989;83:11-6
Compound 48-80
The effect of theophylline and enprofylline on the late cutaneous response to antigen and compound 48/80 (Zunich et al). 1989;83:428-34
Conjunctivitis, allergic
Comparison of beclomethasone dipropionate aqueous nasal spray, astemizole, and the combination in the prophylactic treatment of ragweed pollen–induced rhinoconjunctivitis (Juniper et al). 1989;83:627-33
Continuing medical education
Continuing medical education. 1989;83:711-21, 997-1012
Corrections
Cytologic changes in the nasal secretions during the immediate nasal response (Pelikan and Pelikan-Filipek) (1988;82:1103-12). 1989;83:870
Immunoanalysis of histamine through a novel chemical derivatization (Morel and Delaage) (1988;82:646-54). 1989;83:704-5
Pharmacokinetic evaluation of the terfenadine-theophylline interaction (Luskin et al) (1989;83:406-11). 1989;83:1082
Correspondence
Dr. Sullivan's response to Dr. Toogood's editorial (Sullivan) (Letter); (Toogood) (Reply). 1989;83:706-7
Regarding an article by Milavetz et al (Goldenheim). 1989;83:853-4
Regarding article by Earl and Sullivan (Moss). 1989;83:1138
Regarding the article by Eigen et al (Amirav). 1989;83:1138-9
Regarding the article by Furukawa et al (Weinberger) (Letter); (Lerner et al) (Letter); (Furukawa and DuHamel) (Replies). 1989;83:1139-42
Regarding the article by Zimmerman et al (Rachelefsky et al) (Letter); (Zimmerman et al) (Reply). 1989;83:1139
Cromoglycate; *see* **Disodium cromoglycate**
Cross reactions
Clinical significance and allergenic cross-reactivity of *Euroglyphus maynei* and other nonpyroglyphid and pyroglyphid mites (van Hage-Hamsten and Johansson). 1989;83:581-9
Cross-allergenicity in the legume botanical family in children with food hypersensitivity (Bernhisel-Broadbent and Sampson). 1989;83:435-40
Cross-reactivity between penicillins and cephalosporins: clinical and immunologic studies (Blanca et al). 1989;83:381-5
Cynodon dactylon
An immunoelectrophoretic analysis of the allergens of *Cynodon dactylon* (Bermuda grass) pollen (Matthiesen et al). 1989;83:1124-34
Cytology
Cytologic changes in the nasal secretions during the late nasal response (Pelikan and Pelikan-Filipek). 1989;83:1068-79

D

Death rate; *see* **Mortality**
Dermatitis, atopic
Eicosanoids in skin of patients with atopic dermatitis: prostaglandin E_2 and leukotriene B_4 are present in biologically active concentrations (Fogh et al). 1989;83:450-5
Dermatitis, contact
Hypersensitivity to natural latex (Spaner et al). 1989;83:1135-7
Dermatophagoides
Antigenic and structural analysis of group II allergens (*Der f* II and *Der p* II) from house dust mites (*Dermatophagoides* spp) (Heymann et al). 1989;83:1055-67
Dermatophagoides pteronyssinus
Clinical significance and allergenic cross-reactivity of *Euroglyphus maynei* and other nonpyroglyphid and pyroglyphid mites (van Hage-Hamsten and Johansson). 1989;83:581-9
Guanine content and *Dermatophagoides pteronyssinus* allergens in house dust samples (Le Mao et al). 1989;83:926-33
Immunotherapy with a standardized *Dermatophagoides pteronyssinus* extract. III. Systemic reactions during the rush protocol in patients suffering from asthma (Bousquet et al). 1989;83:797-802
Desensitization, immunologic
Hymenoptera venom immunotherapy. I. Induction of T cell-mediated immunity by honeybee venom immunotherapy: relationships with specific antibody responses (Lesourd et al). 1989;83:563-71
Hymenoptera venom immunotherapy. II. T proliferative and T

suppressive activities induced by *Vespula* immunotherapy: effects on long-term antibody responses (Lesourd et al). 1989;83:572-80
Immunotherapy with cat-and dog-dander extracts. IV. Effects of 2 years of treatment (Lilja et al). 1989;83:37-44
Specific IgE, IgG, and IgA antibody response to oral immunotherapy in birch pollinosis (Taudorf et al). 1989;83:589-94
Successful use of aztreonam in a patient who failed oral penicillin desensitization (Loria et al). 1989;83:735-7
Therapeutic effect and titers of the specific IgE and IgG antibodies in patients with sea squirt allergy (Hoya asthma) under a long-term hyposensitization with three sea squirt antigens (Jyo et al). 1989;83:386-93

Diisocyanates
Immunologic specificity of isocyanate-induced IgE antibodies in serum from 10 sensitized workers (Wass and Belin). 1989;83:126-35
Significant changes in nonspecific bronchial responsiveness after isolated immediate bronchospecific reactions caused by isocyanates but not after a late reaction caused by plicatic acid (Malo et al). 1989;83:159-65

Disease models, animal
Dermal mast cell releasability and end organ responsiveness in atopic and nonatopic dogs (Turner et al). 1989;83:643-8

Disodium cromoglycate
Comparative efficacy of salbutamol, ipratropium, and cromoglycate in the prevention of bronchospasm induced by exercise and hyperosmolar challenges (Boulet et al). 1989;83:882-7

DNA probes, HLA
Association of class II DNA restriction fragments with responsiveness to *Ambrosia artemisiifolia* (short ragweed)-pollen allergen *Amb a* V in ragweed-allergic patients (Zwollo et al). 1989;83:45-54

Dopamine
Dopamine inhibition of superoxide anion production by polymorphonuclear leukocytes (Yamazaki et al). 1989;83:967-72

Dose-response relationship
High-dose inhaled steroid therapy for asthma (Toogood). 1989;83:528-36 (Symposium)

Double-blind method
A double-blind, placebo-controlled, crossover trial of ketotifen versus hydroxyzine in the treatment of pediatric mastocytosis (Kettelhut et al). 1989;83:866-70

Drug evaluation; *see also* specific agent
Duration of the effect of a single dose of azelastine on histamine-induced bronchoconstriction (Magnussen et al). 1989;83:467-71

Drug hypersensitivity
Successful use of aztreonam in a patient who failed oral penicillin desensitization (Loria et al). 1989;83:735-7

Dust
Antigenic and structural analysis of group II allergens (*Der f* II and *Der p* II) from house dust mites (*Dermatophagoides* spp) (Heymann et al). 1989;83:1055-67
Clinical significance and allergenic cross-reactivity of *Euroglyphus maynei* and other nonpyroglyphid and pyroglyphid mites (van Hage-Hamsten and Johansson). 1989;83:581-9
Correlations between levels of mite and cat allergens in settled and airborne dust (Swanson et al). 1989;83:776-83
Dust mite allergens and asthma—a worldwide problem (International Workshop et al). 1989;83:416-27
The effect of cat removal on allergen content in household-dust samples (Wood et al). 1989;83:730-4
Guanine content and *Dermatophagoides pteronyssinus* allergens in house dust samples (Le Mao et al). 1989;83:926-33

Dust mites; *see* **Mites**

E

Editorials
Editorials. 1989;83:369-73, 1027-31

Eicosanoic acids
Eicosanoids in skin of patients with atopic dermatitis: prostaglandin E_2 and leukotriene B_4 are present in biologically active concentrations (Fogh et al). 1989;83:450-5

Electrophoresis, polyacrylamide gel
Analysis of the stabilizing effect of epsilon-aminocaproic acid by electrophoretic techniques and immunoblotting (Van Hoeyveld et al). 1989;83:601-9

Emergency outpatient unit; *see* **Emergency service, hospital**

Emergency service, hospital
Epidemiology of acute asthma: IgE antibodies to common inhalant allergens as a risk factor for emergency room visits (Pollart et al). 1989;83:875-82

Endoscopy
Evaluation of nasal patency by fiberoptic rhinoscopy (Zedalis et al). 1989;83:973-8
Flexible fiberoptic rhinoscopy in the diagnosis of sinusitis (Castellanos and Axelrod). 1989;83:91-4

Enprofylline
The effect of theophylline and enprofylline on the late cutaneous response to antigen and compound 48/80 (Zunich et al). 1989;83:428-34

Eosinophilia
Hypereosinophilia, neurologic, and gastrointestinal symptoms after bee-pollen ingestion (Lin et al). 1989;83:793-6

Eosinophils
The effect of azelastine on neutrophil and eosinophil generation of superoxide (Busse et al). 1989;83:400-5
Heterogeneity of human eosinophils (Fukuda and Gleich). 1989;83:369-73 (Editorial)
Hypodense eosinophilic granulocytes in normal individuals and patients with asthma: generation of hypodense cell populations in vitro (Kloprogge et al). 1989;83:393-400
Inhibition of platelet-activating factor (PAF)-induced chemotaxis and PAF binding to human eosinophils and neutrophils by the specific ginkgolide-derived PAF antagonist, BN 52021 (Kurihara et al). 1989;83:83-90

Epidemiology
Epidemiology of acute asthma: IgE antibodies to common inhalant allergens as a risk factor for emergency room visits (Pollart et al). 1989;83:875-82

Epithelium
Epithelium-derived relaxing factor(s) and bronchial reactivity (Vanhoutte). 1989;83:855-61 (Postgrad. course)
Hematopoietic growth factor production by cultured cells of human nasal polyp epithelial scrapings: kinetics, cell source, and relationship to clinical status (Ohnishi et al). 1989;83:1091-100
The toxicity of constituents of cedar and pine woods to pulmonary epithelium (Ayars et al). 1989;83:610-8

Epsilon-aminocaproic acid; *see* **6-Aminocaproic acid**

Erythema multiforme
High-molelcular-weight kininogen is cleaved in active erythema multiforme (Lang et al). 1989;83:802-10

Euroglyphus maynei
Clinical significance and allergenic cross-reactivity of *Euroglyphus maynei* and other nonpyroglyphid and pyroglyphid mites (van Hage-Hamsten and Johansson). 1989;83:581-9

Exercise
Comparative efficacy of salbutamol, ipratropium, and cromoglycate in the prevention of bronchospasm induced by exercise and hyperosmolar challenges (Boulet et al). 1989;83:882-7

F

Factor VIII
Immunodeficiency in patients with hemophilia: an underlying deficiency and lack of correlation with factor replacement therapy or exposure to human immunodeficiency virus (Jin et al). 1989;83:165-70
Fiber optics
Evaluation of nasal patency by fiberoptic rhinoscopy (Zedalis et al). 1989;83:973-8
Flexible fiberoptic rhinoscopy in the diagnosis of sinusitis (Castellanos and Axelrod). 1989;83:91-4
Food hypersensitivity
Comparison of results of skin prick tests (with fresh foods and commercial food extracts) and RAST in 100 patients with oral allergy syndrome (Ortolani et al). 1989;83:683-90
Cross-allergenicity in the legume botanical family in children with food hypersensitivity (Bernhisel-Broadbent and Sampson). 1989;83:435-40
Gustatory rhinitis: a syndrome of food-induced rhinorrhea (Raphael et al). 1989;83:110-5
Highly atopic children: formation of IgE antibody to food protein, especially peanut (Zimmerman et al). 1989;83:764-70
Hypereosinophilia, neurologic, and gastrointestinal symptoms after bee-pollen ingestion (Lin et al). 1989;83:793-6
Isolation and characterization of heat-stable allergens from shrimp *(Penaeus indicus)* (Nagpal et al). 1989;83:26-36
The natural history of peanut allergy (Bock and Atkins). 1989;83:900-4
Species-specific shrimp allergens: RAST and RAST-inhibition studies (Morgan et al). 1989;83:1112-7
Sulfite-treated lettuce challenges in sulfite-sensitive subjects with asthma (Howland and Simon). 1989;83:1079-82
Fungi
Immunoprint analysis of *Calvatia cyathiformis* allergens. I. Reactivity with individual sera (Horner et al). 1989;83:784-92

G

Gamma globulins
Specific IgE, IgG, and IgA antibody response to oral immunotherapy in birch pollinosis (Taudorf et al). 1989;83:589-94
Gastrointestinal system
Hypereosinophilia, neurologic, and gastrointestinal symptoms after bee-pollen ingestion (Lin et al). 1989;83:793-6
Ginkgo biloba
Inhibition of platelet-activating factor (PAF)-induced chemotaxis and PAF binding to human eosinophils and neutrophils by the specific ginkgolide-derived PAF antagonist, BN 52021 (Kurihara et al). 1989;83:83-90
Glucocorticoids, synthetic
Leukotriene B_4 as a mediator of early and late reactions to antigen in humans: the effect of systemic glucocorticoid treatment in vivo (Freeland et al). 1989;83:634-42
Glycyphagus domesticus
Clinical significance and allergenic cross-reactivity of *Euroglyphus maynei* and other nonpyroglyphid and pyroglyphid mites (van Hage-Hamsten and Johansson). 1989;83:581-9
Granulocytes; *see also* **Eosinophils**
Expression of complement receptors type 1 (CR1) and type 3 (CR3) on circulating granulocytes in experimentally provoked asthma (Arm et al). 1989;83:649-55
Grasses
Safety and immunogenicity of immunotherapy with accelerated dosage schedules of polymerized grass and ragweed in patients with dual inhalant sensitivity (Grammer et al). 1989;83:750-6
Growth factors; *see* **Growth substances**
Growth substances
Hematopoietic growth factor production by cultured cells of human nasal polyp epithelial scrapings: kinetics, cell source, and relationship to clinical status (Ohnishi et al). 1989;83:1091-100
Guanine
Guanine content and *Dermatophagoides pteronyssinus* allergens in house dust samples (Le Mao et al). 1989;83:926-33

H

Hay fever
Comparison of beclomethasone dipropionate aqueous nasal spray, astemizole, and the combination in the prophylactic treatment of ragweed pollen–induced rhinoconjunctivitis (Juniper et al). 1989;83:627-33
Comparison of results of skin prick tests (with fresh foods and commercial food extracts) and RAST in 100 patients with oral allergy syndrome (Ortolani et al). 1989;83:683-90
SCH 434: a new antihistamine/decongestant for seasonal allergic rhinitis (Storms et al). 1989;83:1083-90
Seasonal variation in specific IgE antibodies of grass-pollen hypersensitive patients depends on the steady state IgE concentration and is not related to clinical symptoms (Somville et al). 1989;83:486-94
Heavy chain diseases
Burkitt's lymphoma developing in a 7-year-old boy with hyper-IgE syndrome (Gorin et al). 1989;83:5-10
Hematopoietic system
Hematopoietic growth factor production by cultured cells of human nasal polyp epithelial scrapings: kinetics, cell source, and relationship to clinical status (Ohnishi et al). 1989;83:1091-100
Hemodialysis
Double-blind, placebo-controlled study of nicergoline in the treatment of pruritus in patients receiving maintenance hemodialysis (Bousquet et al). 1989;83:825-8
Hemophilia
Immunodeficiency in patients with hemophilia: an underlying deficiency and lack of correlation with factor replacement therapy or exposure to human immunodeficiency virus (Jin et al). 1989;83:165-70
Histamine; *see also* **Histamine antagonists**; **Histamine liberation**
Analysis of the wheal-and-flare reactions that follow the intradermal injection of histamine and morphine in adults with recurrent, unexplained anaphylaxis and systemic mastocytosis (Keffer et al). 1989;83:595-601
Effect of topical capsaicin on the cutaneous responses to inflammatory mediators and to antigen in man (McCusker et al). 1989;83:1118-24
Nasal histamine challenges in symptomatic allergic rhinitis (Mullins et al). 1989;83:955-9
Use of plasma histamine levels to monitor cutaneous mast cell degranulation (McBride et al). 1989;83:374-80
Histamine antagonists
Duration of the effect of a single dose of azelastine on histamine-induced bronchoconstriction (Magnussen et al). 1989;83:467-71

Effect of cetirizine on mast cell-mediator release and cellular traffic during the cutaneous late-phase reaction (Charlesworth et al). 1989;83:905-12

SCH 434: a new antihistamine/decongestant for seasonal allergic rhinitis (Storms et al). 1989;83:1083-90

Histamine liberation; *see also* **Histamine**

Azelastine inhibits IgE-mediated human basophil histamine release (Little and Casale). 1989;83:862-5

The effect of preseasonal immunotherapy on the production of histamine-releasing factor (HRF) by mononuclear cells from patients with seasonal asthma: results of a double-blind, placebo-controlled, randomized study (Kuna et al). 1989;83:816-24

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Histamine receptors; *see* **Receptors, histamine H_1**

HIV

Immunodeficiency in patients with hemophilia: an underlying deficiency and lack of correlation with factor replacement therapy or exposure to human immunodeficiency virus (Jin et al). 1989;83:165-70

House dust; *see* **Dust**

Hoya asthma

Therapeutic effect and titers of the specific IgE and IgG antibodies in patients with sea squirt allergy (Hoya asthma) under a long-term hyposensitization with three sea squirt antigens (Jyo et al). 1989;83:386-93

Hydroxyzine

A double-blind, placebo-controlled, crossover trial of ketotifen versus hydroxyzine in the treatment of pediatric mastocytosis (Kettelhut et al). 1989;83:866-70

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Hymenoptera venom immunotherapy. II. T proliferative and T suppressive activities induced by *Vespula* immunotherapy: effects on long-term antibody responses (Lesourd et al). 1989;83:572-80

Survey of whole body–extract immunotherapy for imported fire ant– and other Hymenoptera-sting allergy (Fire Ant Subcommittee of the American Academy of Allergy and Immunology). 1989;83:1107-11

Hypereosinophilia; *see* **Eosinophilia**

Hypersensitivity

Antigenic and structural analysis of group II allergens (*Der f*II and *Der p*II) from house dust mites (*Dermatophagoides* spp) (Heymann et al). 1989;83:1055-67

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Hypersensitivity, cutaneous; *see* **Dermatitis, contact**

Hypersensitivity, delayed

Dissociation of cutaneous vascular permeability and the development of cutaneous late-phase allergic reactions (Keahey et al). 1989;83:669-76

Effect of cetirizine on mast cell-mediator release and cellular traffic during the cutaneous late-phase reaction (Charlesworth et al). 1989;83:905-12

Platelet function: aggregation by PAF or sequestration in lung is not modified during immediate or late allergen-induced bronchospasm in man (Hemmendinger et al). 1989;83:990-6

Hypersensitivity, drug; *see* **Drug hypersensitivity**

Hypersensitivity, food; *see* **Food hypersensitivity**

Hypersensitivity, immediate

Dermal mast cell releasability and end organ responsiveness in atopic and nonatopic dogs (Turner et al). 1989;83:643-8

Dissociation of cutaneous vascular permeability and the development of cutaneous late-phase allergic reactions (Keahey et al). 1989;83:669-76

Effect of the oral leukotriene D_4 antagonist LY171883 on inhaled and intradermal challenge with antigen and leukotriene D_4 in atopic subjects (Fuller et al). 1989;83:939-44

Highly atopic children: formation of IgE antibody to food protein, especially peanut (Zimmerman et al). 1989;83:764-70

Platelet function: aggregation by PAF or sequestration in lung is not modified during immediate or late allergen-induced bronchospasm in man (Hemmendinger et al). 1989;83:990-6

Hypersensitivity, respiratory; *see* **Respiratory hypersensitivity**

Hyposensitization therapy; *see* **Desensitization, immunologic**

I

IgA

Specific IgE, IgG, and IgA antibody response to oral immunotherapy in birch pollinosis (Taudorf et al). 1989;83:589- 94

IgE

Anaphylaxis to infusion of autologous bone marrow: an apparent reaction to self, mediated by IgE antibody to bovine serum albumin (Macy et al). 1989;83:871-5

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Further observations of stopping venom immunotherapy: comparison of patients stopped because of a fall in serum venom–specific IgE to insignificant levels with patients stopped prematurely by self-choice (Reisman and Lantner). 1989;83:1049-54

Highly atopic children: formation of IgE antibody to food protein, especially peanut (Zimmerman et al). 1989;83:764-70

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Seasonal variation in specific IgE antibodies of grass-pollen hypersensitive patients depends on the steady state IgE concentration and is not related to clinical symptoms (Somville et al). 1989;83:486-94

Serum immunoglobulin E levels in patients with primary biliary cirrhosis (Minuk et al). 1989;83:462-6

Specific IgE, IgG, and IgA antibody response to oral immunotherapy in birch pollinosis (Taudorf et al). 1989;83:589-94

Therapeutic effect and titers of the specific IgE and IgG antibodies in patients with sea squirt allergy (Hoya asthma) under a long-term hyposensitization with three sea squirt antigens (Jyo et al). 1989;83:386-93

IgG

Specific IgE, IgG, and IgA antibody response to oral immunotherapy in birch pollinosis (Taudorf et al). 1989;83:589-94

Therapeutic effect and titers of the specific IgE and IgG anti-

IgG—cont'd
bodies in patients with sea squirt allergy (Hoya asthma) under a long-term hyposensitization with three sea squirt antigens (Jyo et al). 1989;83:386-93
Immunization, animal
Characterization with monoclonal and polyclonal antibodies of new major allergen from grass pollen in the group I molecular weight range (van Ree et al). 1989;83:144-51
Identification of leukotriene B_4 as the neutrophil chemotactic factor released by antigen challenge from passively sensitized guinea pig lungs (Atkins et al). 1989; 83:136-43
Immunization, passive
Immunotherapy in asthma (Creticos). 1989;83:554-62 (Symposium)
Immunotherapy with cat-and dog-dander extracts. IV. Effects of 2 years of treatment (Lilja et al). 1989;83:37-44
Suppression of the late cutaneous response by immunotherapy (Fling et al). 1989;83:101-9
Immunoblotting
Analysis of the stabilizing effect of epsilon-aminocaproic acid by electrophoretic techniques and immunoblotting (Van Hoeyveld et al). 1989;83:601-9
Immunoelectrophoresis
An immunoelectrophoretic analysis of the allergens of *Cynodon dactylon* (Bermuda grass) pollen (Matthiesen et al). 1989;83:1124-34
Immunoglobulins, alpha chain; *see* **IgA**
Immunoglobulins, epsilon chain; *see* **IgE**
Immunoglobulins, gamma chain; *see* **IgG**
Immunoprinting
Immunoprint analysis of *Calvatia cyathiformis* allergens. I. Reactivity with individual sera (Horner et al). 1989;83:784-92
Immunoprint pattern in patients with allergic bronchopulmonary aspergillosis in different stages (Baur et al). 1989; 83:839-44
Immunotherapy; *see also* **Desensitization, immunologic**
The effect of preseasonal immunotherapy on the production of histamine-releasing factor (HRF) by mononuclear cells from patients with seasonal asthma: results of a double-blind, placebo-controlled, randomized study (Kuna et al). 1989;83:816-24
Further observations of stopping venom immunotherapy: comparison of patients stopped because of a fall in serum venom–specific IgE to insignificant levels with patients stopped prematurely by self-choice (Reisman and Lantner). 1989;83:1049-54
Hymenoptera venom immunotherapy. II. T proliferative and T suppressive activities induced by *Vespula* immunotherapy: effects on long-term antibody responses (Lesourd et al). 1989;83:572-80
Immunotherapy decreases skin sensitivity to cat extract (Van Metre et al). 1989;83:888-99
Immunotherapy with a standardized *Dermatophagoides pteronyssinus* extract. III. Systemic reactions during the rush protocol in patients suffering from asthma (Bousquet et al). 1989;83:797-802
Survey of whole body–extract immunotherapy for imported fire ant– and other Hymenoptera-sting allergy (Fire Ant Subcommittee of the American Academy of Allergy and Immunology). 1989;83:1107-11
Immunotherapy, passive; *see* **Immunization, passive**
Immunotherapy, standards
Safety and immunogenicity of immunotherapy with accelerated dosage schedules of polymerized grass and ragweed in patients with dual inhalant sensitivity (Grammer et al). 1989;83:750-6
In memoriam
Heinz Joseph Wittig, head of the allergy division at Ochsner Clinic. 1989;83:703
Indigent care; *see* **Medical indigency**
Indomethacin
Effect of indomethacin on adenosine-induced bronchoconstriction (Crimi et al). 1989;83:921-5
Inflammation
Asthma and mast cell activation (Kaliner). 1989;83:510-20 (Symposium)
Late-phase airway reaction and inflammation (Dolovich et al). 1989;83:521-4 (Symposium)
Late-phase asthmatic responses and airway inflammation (Hargreave). 1989;83:525-7 (Symposium)
Symposium on inflammation in asthma: introduction (Fink). 1989;83:509 (Symposium)
Inhalation drug administration; *see* **Administration, inhalation**
Insect bites and stings
Further observations of stopping venom immunotherapy: comparison of patients stopped because of a fall in serum venom–specific IgE to insignificant levels with patients stopped prematurely by self-choice (Reisman and Lantner). 1989;83:1049-54
Survey of whole body–extract immunotherapy for imported fire ant– and other Hymenoptera-sting allergy (Fire Ant Subcommittee of the American Academy of Allergy and Immunology). 1989;83:1107-11
Interleukins
Interleukin-4 is a neutrophil activator (Boey et al). 1989;83:978-84
International cooperation
The international collaborative study on the first international standard of birch (*Betula verrucosa*)-pollen extract (Arntzen et al). 1989;83:66-82
Intradermal tests; *see also* **Skin tests**
Analysis of the wheal-and-flare reactions that follow the intradermal injection of histamine and morphine in adults with recurrent, unexplained anaphylaxis and systemic mastocytosis (Keffer et al). 1989;83:595-601
Dermal mast cell releasability and end organ responsiveness in atopic and nonatopic dogs (Turner et al). 1989; 83:643-8
Dissociation of cutaneous vascular permeability and the development of cutaneous late-phase allergic reactions (Keahey et al). 1989;83:669-76
Ipratropium
Comparative efficacy of salbutamol, ipratropium, and cromoglycate in the prevention of bronchospasm induced by exercise and hyperosmolar challenges (Boulet et al). 1989; 83:882-7
Pulmonary effects of sulfur dioxide exposure and ipratropium bromide pretreatment in adults with nonallergic asthma (McManus et al). 1989;83:619-26
Isocyanates
Immunologic specificity of isocyanate-induced IgE antibodies in serum from 10 sensitized workers (Wass and Belin). 1989;83:126-35
Significant changes in nonspecific bronchial responsiveness after isolated immediate bronchospecific reactions caused by isocyanates but not after a late reaction caused by plicatic acid (Malo et al). 1989;83:159-65

Italy
Allergenic pollens in the southern Mediterranean area (D'Amato and Lobefalo). 1989;83:116-22

K

Ketotifen
A double-blind, placebo-controlled, crossover trial of ketotifen versus hydroxyzine in the treatment of pediatric mastocytosis (Kettelhut et al). 1989;83:866-70
Refractory cholinergic urticaria successfully treated with ketotifen (McClean et al). 1989;83:738-41
Kinetics
Hematopoietic growth factor production by cultured cells of human nasal polyp epithelial scrapings: kinetics, cell source, and relationship to clinical status (Ohnishi et al). 1989;83:1091-100
Kininogens
High-molelcular-weight kininogen is cleaved in active erythema multiforme (Lang et al). 1989;83:802-10

L

Latex
Hypersensitivity to natural latex (Spaner et al). 1989;83:1135-7
Legumes
Cross-allergenicity in the legume botanical family in children with food hypersensitivity (Bernhisel-Broadbent and Sampson). 1989;83:435-40
Lepidoglyphus destructor
Clinical significance and allergenic cross-reactivity of *Euroglyphus maynei* and other nonpyroglyphid and pyroglyphid mites (van Hage-Hamsten and Johansson). 1989;83:581-9
Letters
Dr. Sullivan's response to Dr. Toogood's editorial (Sullivan) (Letter); (Toogood) (Reply). 1989;83:706-7
Regarding an article by Milavetz et al (Goldenheim). 1989;83:853-4
Regarding article by Earl and Sullivan (Moss). 1989;83:1138
Regarding the article by Eigen et al (Amirav). 1989;83:1138-9
Regarding the article by Furukawa et al (Weinberger) (Letter); (Lerner et al) (Letter); (Furukawa and DuHamel) (Replies). 1989;83:1139-42
Regarding the article by Zimmerman et al (Rachelefsky et al) (Letter); (Zimmerman et al) (Reply). 1989;83:1139
Leukotrienes, antagonists
Effect of the oral leukotriene D_4 antagonist LY171883 on inhaled and intradermal challenge with antigen and leukotriene D_4 in atopic subjects (Fuller et al). 1989;83:939-44
Leukotrienes B
Eicosanoids in skin of patients with atopic dermatitis: prostaglandin E_2 and leukotriene B_4 are present in biologically active concentrations (Fogh et al). 1989;83:450-5
Identification of leukotriene B_4 as the neutrophil chemotactic factor released by antigen challenge from passively sensitized guinea pig lungs (Atkins et al). 1989;83:136-43
Late appearance of phospholipid platelet-activating factor and leukotriene B_4 in human skin after repeated antigen challenge (Shalit et al). 1989;83:691-6
Leukotriene B_4 as a mediator of early and late reactions to antigen in humans: the effect of systemic glucocorticoid treatment in vivo (Freeland et al). 1989;83:634-42
Liver cirrhosis, biliary
Serum immunoglobulin E levels in patients with primary biliary cirrhosis (Minuk et al). 1989;83:462-6
Lolium
Identification of two distinct allergenic sites on ryegrass- pollen allergen, *Lol p* IV (Jaggi et al). 1989;83:845-52
Long term care
Outcome of long-term hospitalization for asthma in children (Strunk et al). 1989;83:17-25
Loratadine
Evaluation of the efficacy and safety of loratadine in perennial allergic rhinitis (Bruttmann et al). 1989;83:411-6
SCH 434: a new antihistamine/decongestant for seasonal allergic rhinitis (Storms et al). 1989;83:1083-90
Lung, physiology
Pulmonary effects of sulfur dioxide exposure and ipratropium bromide pretreatment in adults with nonallergic asthma (McManus et al). 1989;83:619-26
Lung diseases
The toxicity of constituents of cedar and pine woods to pulmonary epithelium (Ayars et al). 1989;83:610-8
LY171883
Effect of the oral leukotriene D_4 antagonist LY171883 on inhaled and intradermal challenge with antigen and leukotriene D_4 in atopic subjects (Fuller et al). 1989;83:939-44

M

Macrophages
The contribution of alveolar macrophages to hyperreactive airway disease (Rankin). 1989;83:722-9 (Postgrad. course)
Manometry
Evaluation of nasal patency by fiberoptic rhinoscopy (Zedalis et al). 1989;83:973-8
Rhinomanometry (Schumacher). 1989;83:711-8 (CME article)
Mast cells
Asthma and mast cell activation (Kaliner). 1989;83:510-20 (Symposium)
Dermal mast cell releasability and end organ responsiveness in atopic and nonatopic dogs (Turner et al). 1989;83:643-8
Effect of cetirizine on mast cell-mediator release and cellular traffic during the cutaneous late-phase reaction (Charlesworth et al). 1989;83:905-12
Functional and morphologic characterization of mast cells recovered by bronchoalveolar lavage from Basenji greyhound and mongrel dogs (Sommerhoff et al). 1989;83:441-9
Rabbit $F(ab')_2$ antihuman IgE is a universal skin test reagent in the evaluation of skin mast cell degranulation in vivo (Weiss et al). 1989;83:1040-8
Use of plasma histamine levels to monitor cutaneous mast cell degranulation (McBride et al). 1989;83:374-80
Mastocytosis
Analysis of the wheal-and-flare reactions that follow the intradermal injection of histamine and morphine in adults with recurrent, unexplained anaphylaxis and systemic mastocytosis (Keffer et al). 1989;83:595-601
A double-blind, placebo-controlled, crossover trial of ketotifen versus hydroxyzine in the treatment of pediatric mastocytosis (Kettelhut et al). 1989;83:866-70
Medicaid; *see* **Medical assistance, Title 19**
Medical assistance, Title 19
Prevalence and treatment of asthma in the Michigan Medicaid patient population younger than 45 years, 1980-1986 (Gerstman et al). 1989;83:1032-9
Medical indigency
Asthma care for the indigent (Malveaux). 1989;83:1029-31 (Editorial)

Methacholine compounds
Airway responsiveness to methacholine after inhalation of nebulized hypertonic saline in bronchial asthma (O'Hickey et al). 1989;83:472-6
Relationship between deposition of and responsiveness to inhaled methacholine in normal and asymptomatic subjects (Donna et al). 1989;83:456-61
Theophylline does not inhibit allergen-induced increase in airway responsiveness to methacholine (Cockcroft et al). 1989;83:913-20

Mites
Antigenic and structural analysis of group II allergens (*Der f* II and *Der p* II) from house dust mites (*Dermatophagoides* spp) (Heymann et al). 1989;83:1055-67
Clinical significance and allergenic cross-reactivity of *Euroglyphus maynei* and other nonpyroglyphid and pyroglyphid mites (van Hage-Hamsten and Johansson). 1989;83:581-9
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Dust mite allergens and asthma—a worldwide problem (International Workshop et al). 1989;83:416-27
Immunotherapy with a standardized *Dermatophagoides pteronyssinus* extract. III. Systemic reactions during the rush protocol in patients suffering from asthma (Bousquet et al). 1989;83:797-802

Mononuclear cells
The effect of preseasonal immunotherapy on the production of histamine-releasing factor (HRF) by mononuclear cells from patients with seasonal asthma: results of a double-blind, placebo-controlled, randomized study (Kuna et al). 1989;83:816-24

Morphine
Analysis of the wheal-and-flare reactions that follow the intradermal injection of histamine and morphine in adults with recurrent, unexplained anaphylaxis and systemic mastocytosis (Keffer et al). 1989;83:595-601

Mortality
Identification of the fatality-prone subject with asthma (Strunk). 1989;83:477-85

Mountain cedar
Suppression of the late cutaneous response by immunotherapy (Fling et al). 1989;83:101-9

Multicenter studies
SCH 434: a new antihistamine/decongestant for seasonal allergic rhinitis (Storms et al). 1989;83:1083-90

N

Nasal cavity
Evaluation of nasal patency by fiberoptic rhinoscopy (Zedalis et al). 1989;83:973-8

Nasal cavity, drug effects
Comparison of beclomethasone dipropionate aqueous nasal spray, astemizole, and the combination in the prophylactic treatment of ragweed pollen–induced rhinoconjunctivitis (Juniper et al). 1989;83:627-33

Nasal mucosa, secretions
Cytologic changes in the nasal secretions during the late nasal response (Pelikan and Pelikan-Filipek). 1989;83:1068-79

Nasal polyps
Hematopoietic growth factor production by cultured cells of human nasal polyp epithelial scrapings: kinetics, cell source, and relationship to clinical status (Ohnishi et al). 1989;83:1091-100

Nasal provocation tests
Nasal histamine challenges in symptomatic allergic rhinitis (Mullins et al). 1989;83:955-9
Release of high-molecular-weight neutrophil chemotactic activity from resected human nasal turbinate after antigen challenge (Nagakura et al). 1989;83:656-62

Nasal sprays; *see* **Nasal cavity, drug effects**

Nedocromil sodium
The effect of nedocromil sodium on the bronchoconstrictor effect of neurokinin A in subjects with asthma (Joos et al). 1989;83:663-8
Effect of nedocromil sodium on the late asthmatic reaction to bronchial antigen challenge (Crimi et al). 1989;83:985-90

Neurokinin K
The effect of nedocromil sodium on the bronchoconstrictor effect of neurokinin A in subjects with asthma (Joos et al). 1989;83:663-8

Neurologic manifestations
Hypereosinophilia, neurologic, and gastrointestinal symptoms after bee-pollen ingestion (Lin et al). 1989;83:793-6

Neutrophils
Dopamine inhibition of superoxide anion production by polymorphonuclear leukocytes (Yamazaki et al). 1989;83:967-72
The effect of azelastine on neutrophil and eosinophil generation of superoxide (Busse et al). 1989;83:400-5
Expression of complement receptors type 1 (CR1) and type 3 (CR3) on circulating granulocytes in experimentally provoked asthma (Arm et al). 1989;83:649-55
The formation of eosinophil and neutrophil chemotactic activity during a pollen season and after allergen challenge (Håakansson et al). 1989;83:933-9
Identification of leukotriene B_4 as the neutrophil chemotactic factor released by antigen challenge from passively sensitized guinea pig lungs (Atkins et al). 1989;83:136-43
Inhibition of platelet-activating factor (PAF)-induced chemotaxis and PAF binding to human eosinophils and neutrophils by the specific ginkgolide-derived PAF antagonist, BN 52021 (Kurihara et al). 1989;83:83-90
Interleukin-4 is a neutrophil activator (Boey et al). 1989;83:978-84
Release of high-molecular-weight neutrophil chemotactic activity from resected human nasal turbinate after antigen challenge (Nagakura et al). 1989;83:656-62
Superoxide generation and its modulation by adenosine in the neutrophils of subjects with asthma (Meltzer et al). 1989;83:960-6

Nicergoline
Double-blind, placebo-controlled study of nicergoline in the treatment of pruritus in patients receiving maintenance hemodialysis (Bousquet et al). 1989;83:825-8

Nifedipine
Therapy of chronic idiopathic urticaria with nifedipine: demonstration of beneficial effect in a double-blinded, placebo-controlled, crossover trial (Bressler et al). 1989;83:756-63

Nocturnal disorders
Nocturnal asthma: effect of treatment with oral sustained-release terbutaline, inhaled budesonide, and the two in combination (Dahl et al). 1989;83:811-5

Nuts
Highly atopic children: formation of IgE antibody to food protein, especially peanut (Zimmerman et al). 1989;83:764-70

The natural history of peanut allergy (Bock and Atkins). 1989;83:900-4

O

Obituary
Heinz Joseph Wittig, head of the allergy division at Ochsner Clinic. 1989;83:703

Occupational diseases
The toxicity of constituents of cedar and pine woods to pulmonary epithelium (Ayars et al). 1989;83:610-8

Outpatients
Prevalence and treatment of asthma in the Michigan Medicaid patient population younger than 45 years, 1980-1986 (Gerstman et al). 1989;83:1032-9

P

Peanuts
Highly atopic children: formation of IgE antibody to food protein, especially peanut (Zimmerman et al). 1989;83:764-70
The natural history of peanut allergy (Bock and Atkins). 1989;83:900-4

Pediatrics
The effects of theophylline on cognitive and behavioral performance (Creer and McLoughlin). 1989;83:1027-9 (Editorial)
Outcome of long-term hospitalization for asthma in children (Strunk et al). 1989;83:17-25

Penicillins
Cross-reactivity between penicillins and cephalosporins: clinical and immunologic studies (Blanca et al). 1989;83:381-5
Successful use of aztreonam in a patient who failed oral penicillin desensitization (Loria et al). 1989;83:735-7

Phospholipids
Late appearance of phospholipid platelet-activating factor and leukotriene B_4 in human skin after repeated antigen challenge (Shalit et al). 1989;83:691-6

Physical endurance
The effects of theophylline on the physical performance and work capacity of well-trained athletes (Morton et al). 1989;83:55-61

Placebos
A double-blind, placebo-controlled, crossover trial of ketotifen versus hydroxyzine in the treatment of pediatric mastocytosis (Kettelhut et al). 1989;83:866-70

Platelet activating factor
Effect of topical capsaicin on the cutaneous responses to inflammatory mediators and to antigen in man (McCusker et al). 1989;83:1118-24
Inhibition of platelet-activating factor (PAF)-induced chemotaxis and PAF binding to human eosinophils and neutrophils by the specific ginkgolide-derived PAF antagonist, BN 52021 (Kurihara et al). 1989;83:83-90
Late appearance of phospholipid platelet-activating factor and leukotriene B_4 in human skin after repeated antigen challenge (Shalit et al). 1989;83:691-6
Platelet-activating factor and airway reactivity (Townley et al). 1989;83:997-1010 (CME article)
Platelet function: aggregation by PAF or sequestration in lung is not modified during immediate or late allergen-induced bronchospasm in man (Hemmendinger et al). 1989;83:990-6

Plicatic acid
Significant changes in nonspecific bronchial responsiveness after isolated immediate bronchospecific reactions caused by isocyanates but not after a late reaction caused by plicatic acid (Malo et al). 1989;83:159-65

Pollen
Allergenic pollens in the southern Mediterranean area (D'Amato and Lobefalo). 1989;83:116-22
Association of class II DNA restriction fragments with responsiveness to *Ambrosia artemisiifolia* (short ragweed)-pollen allergen *Amb a* V in ragweed-allergic patients (Zwollo et al). 1989;83:45-54
Characterization with monoclonal and polyclonal antibodies of new major allergen from grass pollen in the group I molecular weight range (van Ree et al). 1989;83:144-51
Comparison of beclomethasone dipropionate aqueous nasal spray, astemizole, and the combination in the prophylactic treatment of ragweed pollen–induced rhinoconjunctivitis (Juniper et al). 1989;83:627-33
The formation of eosinophil and neutrophil chemotactic activity during a pollen season and after allergen challenge (Håakansson et al). 1989;83:933-9
Hypereosinophilia, neurologic, and gastrointestinal symptoms after bee-pollen ingestion (Lin et al). 1989;83:793-6
Identification of two distinct allergenic sites on ryegrass- pollen allergen, *Lol p* IV (Jaggi et al). 1989;83:845-52
An immunoelectrophoretic analysis of the allergens of *Cynodon dactylon* (Bermuda grass) pollen (Matthiesen et al). 1989;83:1124-34
The international collaborative study on the first international standard of birch (*Betula verrucosa*)-pollen extract (Arntzen et al). 1989;83:66-82
Seasonal variation in specific IgE antibodies of grass-pollen hypersensitive patients depends on the steady state IgE concentration and is not related to clinical symptoms (Somville et al). 1989;83:486-94
Specific IgE, IgG, and IgA antibody response to oral immunotherapy in birch pollinosis (Taudorf et al). 1989;83:589-94

Polymorphonuclear leukocytes; *see* **Neutrophils**

Postgraduate course
Postgraduate course. 1989;83:722-9, 855-61, 1013-26

President's address
President's address. 1989;83:1-4

Prevalance studies
Prevalence and treatment of asthma in the Michigan Medicaid patient population younger than 45 years, 1980-1986 (Gerstman et al). 1989;83:1032-9

Prostaglandins E
Effect of topical capsaicin on the cutaneous responses to inflammatory mediators and to antigen in man (McCusker et al). 1989;83:1118-24
Eicosanoids in skin of patients with atopic dermatitis: prostaglandin E_2 and leukotriene B_4 are present in biologically active concentrations (Fogh et al). 1989;83:450-5

Proteins
Highly atopic children: formation of IgE antibody to food protein, especially peanut (Zimmerman et al). 1989;83:764-70

Pruritus
Double-blind, placebo-controlled study of nicergoline in the treatment of pruritus in patients receiving maintenance hemodialysis (Bousquet et al). 1989;83:825-8

Pseudoephedrine
SCH 434: a new antihistamine/decongestant for seasonal allergic rhinitis (Storms et al). 1989;83:1083-90

Pulmonary alveoli
The contribution of alveolar macrophages to hyperreactive airway disease (Rankin). 1989;83:722-9 (Postgrad. course)

R

Rabbit $F(ab')_2$; *see* **Skin tests**

Radioallergosorbent test
Comparison of results of skin prick tests (with fresh foods and commercial food extracts) and RAST in 100 patients with oral allergy syndrome (Ortolani et al). 1989;83:683-90
Species-specific shrimp allergens: RAST and RAST-inhibition studies (Morgan et al). 1989;83:1112-7
Ragweed; *see* **Pollen**
RAST; *see* **Radioallergosorbent test**
Reaction time; *see also* **Skin tests**
The effect of theophylline and enprofylline on the late cutaneous response to antigen and compound 48/80 (Zunich et al). 1989;83:428-34
Late-phase airway reaction and inflammation (Dolovich et al). 1989;83:521-4 (Symposium)
Late-phase asthmatic responses and airway inflammation (Hargreave). 1989;83:525-7 (Symposium)
Reading list
Training program directors' reading list for board examination in allergy and immunology—1989. 1989;83:495-508
Receptors, adrenergic, beta
The interaction of azelastine with human lung histamine H_1, beta, and muscarinic receptor–binding sites (Casale). 1989;83:771-6
Receptors, cholinergic
Refractory cholinergic urticaria successfully treated with ketotifen (McClean et al). 1989;83:738-41
Receptors, complement
Expression of complement receptors type 1 (CR1) and type 3 (CR3) on circulating granulocytes in experimentally provoked asthma (Arm et al). 1989;83:649-55
Receptors, histamine H_1
Antihistamines in asthma (Holgate and Finnerty). 1989;83:537-47 (Symposium)
The interaction of azelastine with human lung histamine H_1, beta, and muscarinic receptor–binding sites (Casale). 1989;83:771-6
Receptors, muscarinic
The interaction of azelastine with human lung histamine H_1, beta, and muscarinic receptor–binding sites (Casale). 1989;83:771-6
Relevence standards
The international collaborative study on the first international standard of birch (*Betula verrucosa*)-pollen extract (Arntzen et al). 1989;83:66-82
Research
Allergy: at the academic/clinical interface (Sheffer). 1989;83:1-4 (Pres. address)
Respiratory hypersensitivity
Airway responsiveness to methacholine after inhalation of nebulized hypertonic saline in bronchial asthma (O'Hickey et al). 1989;83:472-6
Allergenic pollens in the southern Mediterranean area (D'Amato and Lobefalo). 1989;83:116-22
Association of class II DNA restriction fragments with responsiveness to *Ambrosia artemisiifolia* (short ragweed)-pollen allergen *Amb a* V in ragweed-allergic patients (Zwollo et al). 1989;83:45-54
Characterization with monoclonal and polyclonal antibodies of new major allergen from grass pollen in the group I molecular weight range (van Ree et al). 1989;83:144-51
The contribution of alveolar macrophages to hyperreactive airway disease (Rankin). 1989;83:722-9 (Postgrad. course)
Epithelium-derived relaxing factor(s) and bronchial reactivity (Vanhoutte). 1989;83:855-61 (Postgrad. course)
Late-phase airway reaction and inflammation (Dolovich et al). 1989;83:521-4 (Symposium)
New concepts in the pathogenesis of bronchial hyperresponsiveness and asthma (Barnes). 1989;83:1013-26 (Postgrad. course)
Platelet-activating factor and airway reactivity (Townley et al). 1989;83:997-1010 (CME article)
Relationship between deposition of and responsiveness to inhaled methacholine in normal and asymptomatic subjects (Donna et al). 1989;83:456-61
Safety and immunogenicity of immunotherapy with accelerated dosage schedules of polymerized grass and ragweed in patients with dual inhalant sensitivity (Grammer et al). 1989;83:750-6
Seasonal variation in specific IgE antibodies of grass-pollen hypersensitive patients depends on the steady state IgE concentration and is not related to clinical symptoms (Somville et al). 1989;83:486-94
Significant changes in nonspecific bronchial responsiveness after isolated immediate bronchospecific reactions caused by isocyanates but not after a late reaction caused by plicatic acid (Malo et al). 1989;83:159-65
Theophylline does not inhibit allergen-induced increase in airway responsiveness to methacholine (Cockcroft et al). 1989;83:913-20
Respiratory hypersensitivity, physiopathology
Airway refractoriness to adenosine 5'-monophosphate after repeated inhalation (Daxun et al). 1989;83:152-8
Response time; *see* **Reaction time**
Restriction fragment length polymorphisms
Association of class II DNA restriction fragments with responsiveness to *Ambrosia artemisiifolia* (short ragweed)-pollen allergen *Amb a* V in ragweed-allergic patients (Zwollo et al). 1989;83:45-54
Reviewers
Acknowledgement to reviewers. 1989;83:708-10
Rhinitis; *see also* **Hay fever**; **Rhinitis, allergic perennial**
The effect of azelastine on neutrophil and eosinophil generation of superoxide (Busse et al). 1989;83:400-5
Rhinitis, allergic, perennial
Cytologic changes in the nasal secretions during the late nasal response (Pelikan and Pelikan-Filipek). 1989;83:1068-79
Evaluation of the efficacy and safety of loratadine in perennial allergic rhinitis (Bruttmann et al). 1989;83:411-6
Gustatory rhinitis: a syndrome of food-induced rhinorrhea (Raphael et al). 1989;83:110-5
Immunotherapy in asthma (Creticos). 1989;83:554-62 (Symposium)
Nasal histamine challenges in symptomatic allergic rhinitis (Mullins et al). 1989;83:955-9
Release of high-molecular-weight neutrophil chemotactic activity from resected human nasal turbinate after antigen challenge (Nagakura et al). 1989;83:656-62
Rhinitis, allergic, seasonal; *see* **Hay fever**
Rhinomanometry
Evaluation of nasal patency by fiberoptic rhinoscopy (Zedalis et al). 1989;83:973-8
Rhinomanometry (Schumacher). 1989;83:711-8 (CME article)
Rhinoscopy; *see* **Endoscopy**
Rimiterol
Rimiterol and the prevention of exercise-induced asthma (Morton et al). 1989;83:61-5
Risk factors
Epidemiology of acute asthma: IgE antibodies to common in-

halant allergens as a risk factor for emergency room visits (Pollart et al). 1989;83:875-82

Ryegrass; *see* **Lolium**

S

Salbutamol

Comparative efficacy of salbutamol, ipratropium, and cromoglycate in the prevention of bronchospasm induced by exercise and hyperosmolar challenges (Boulet et al). 1989;83:882-7

Saline solution, hypertonic

Airway responsiveness to methacholine after inhalation of nebulized hypertonic saline in bronchial asthma (O'Hickey et al). 1989;83:472-6

Comparative efficacy of salbutamol, ipratropium, and cromoglycate in the prevention of bronchospasm induced by exercise and hyperosmolar challenges (Boulet et al). 1989;83:882-7

SCH 434

SCH 434: a new antihistamine/decongestant for seasonal allergic rhinitis (Storms et al). 1989;83:1083-90

Sea squirt

Therapeutic effect and titers of the specific IgE and IgG antibodies in patients with sea squirt allergy (Hoya asthma) under a long-term hyposensitization with three sea squirt antigens (Jyo et al). 1989;83:386-93

Sensitization, immunologic; *see* **Immunization**

Serum albumin, bovine

Anaphylaxis to infusion of autologous bone marrow: an apparent reaction to self, mediated by IgE antibody to bovine serum albumin (Macy et al). 1989;83:871-5

Shrimp

Isolation and characterization of heat-stable allergens from shrimp *(Penaeus indicus)* (Nagpal et al). 1989;83:26-36

Species-specific shrimp allergens: RAST and RAST-inhibition studies (Morgan et al). 1989;83:1112-7

Sinusitis

Flexible fiberoptic rhinoscopy in the diagnosis of sinusitis (Castellanos and Axelrod). 1989;83:91-4

Skin tests

Analysis of the wheal-and-flare reactions that follow the intradermal injection of histamine and morphine in adults with recurrent, unexplained anaphylaxis and systemic mastocytosis (Keffer et al). 1989;83:595-601

Circadian variation of skin reactivity and allergy skin tests (Vichyanond and Nelson). 1989;83:1101-6

Comparison of results of skin prick tests (with fresh foods and commercial food extracts) and RAST in 100 patients with oral allergy syndrome (Ortolani et al). 1989;83:683-90

Dermal mast cell releasability and end organ responsiveness in atopic and nonatopic dogs (Turner et al). 1989;83:643-8

Dissociation of cutaneous vascular permeability and the development of cutaneous late-phase allergic reactions (Keahey et al). 1989;83:669-76

Effect of the oral leukotriene D_4 antagonist LY171883 on inhaled and intradermal challenge with antigen and leukotriene D_4 in atopic subjects (Fuller et al). 1989;83:939-44

The effect of theophylline and enprofylline on the late cutaneous response to antigen and compound 48/80 (Zunich et al). 1989;83:428-34

Effect of topical capsaicin on the cutaneous responses to inflammatory mediators and to antigen in man (McCusker et al). 1989;83:1118-24

Immunotherapy decreases skin sensitivity to cat extract (Van Metre et al). 1989;83:888-99

Late appearance of phospholipid platelet-activating factor and leukotriene B_4 in human skin after repeated antigen challenge (Shalit et al). 1989;83:691-6

Rabbit $F(ab')_2$ antihuman IgE is a universal skin test reagent in the evaluation of skin mast cell degranulation in vivo (Weiss et al). 1989;83:1040-8

Suppression of the late cutaneous response by immunotherapy (Fling et al). 1989;83:101-9

Specialties, medical

Allergy: at the academic/clinical interface (Sheffer). 1989;83:1-4 (Pres. address)

Sports

The effects of theophylline on the physical performance and work capacity of well-trained athletes (Morton et al). 1989;83:55-61

Standard preparations; *see* **Reference standards**

Steroids

High-dose inhaled steroid therapy for asthma (Toogood). 1989;83:528-36 (Symposium)

Styela plicata

Therapeutic effect and titers of the specific IgE and IgG antibodies in patients with sea squirt allergy (Hoya asthma) under a long-term hyposensitization with three sea squirt antigens (Jyo et al). 1989;83:386-93

Substance P

Effect of topical capsaicin on the cutaneous responses to inflammatory mediators and to antigen in man (McCusker et al). 1989;83:1119-24

Sulfites

Sulfite-treated lettuce challenges in sulfite-sensitive subjects with asthma (Howland and Simon). 1989;83:1079-82

Sulfur dioxide

Pulmonary effects of sulfur dioxide exposure and ipratropium bromide pretreatment in adults with nonallergic asthma (McManus et al). 1989;83:619-26

Superoxide

Dopamine inhibition of superoxide anion production by polymorphonuclear leukocytes (Yamazaki et al). 1989;83:967-72

The effect of azelastine on neutrophil and eosinophil generation of superoxide (Busse et al). 1989;83:400-5

Superoxide generation and its modulation by adenosine in the neutrophils of subjects with asthma (Meltzer et al). 1989;83:960-6

Suppressor factors, immunologic

Suppression of the late cutaneous response by immunotherapy (Fling et al). 1989;83:101-9

Symposium

Antihistamines in asthma (Holgate and Finnerty). 1989;83:537-47

Asthma and mast cell activation (Kaliner). 1989;83:510-20

High-dose inhaled steroid therapy for asthma (Toogood). 1989;83:528-36

Immunotherapy in asthma (Creticos). 1989;83:554-62

Late-phase airway reaction and inflammation (Dolovich et al). 1989;83:521-4

Late-phase asthmatic responses and airway inflammation (Hargreave). 1989;83:525-7

New aspects of the therapeutic potential of theophylline in asthma (Pauwels). 1989;83:548-53

Symposium on inflammation in asthma: introduction (Fink). 1989;83:509

T

T lymphocytes

Allergen-specific human T cell clones: derivation, specificity, and activation requirements (Gurka et al). 1989;83:945-54

T lymphocytes—cont'd
Hymenoptera venom immunotherapy. I. Induction of T cell-mediated immunity by honeybee venom immunotherapy: relationships with specific antibody responses (Lesourd et al). 1989;83:563-71
Hymenoptera venom immunotherapy. II. T proliferative and T suppressive activities induced by *Vespula* immunotherapy: effects on long-term antibody responses (Lesourd et al). 1989;83:572-80
Task performance and analysis
The effects of theophylline on the physical performance and work capacity of well-trained athletes (Morton et al). 1989;83:55-61
Terbutaline
Nocturnal asthma: effect of treatment with oral sustained-release terbutaline, inhaled budesonide, and the two in combination (Dahl et al). 1989;83:811-5
Terfenadine
Pharmacokinetic evaluation of the terfenadine-theophylline interaction (Luskin et al). 1989;83:406-11
Theophylline
The effect of theophylline and enprofylline on the late cutaneous response to antigen and compound 48/80 (Zunich et al). 1989;83:428-34
The effects of theophylline on cognitive and behavioral performance (Creer and McLoughlin). 1989;83:1027-9 (Editorial)
The effects of theophylline on the physical performance and work capacity of well-trained athletes (Morton et al). 1989;83:55-61
New aspects of the therapeutic potential of theophylline in asthma (Pauwels). 1989;83:548-53 (Symposium)
Pharmacokinetic evaluation of the terfenadine-theophylline interaction (Luskin et al). 1989;83:406-11
Theophylline does not inhibit allergen-induced increase in airway responsiveness to methacholine (Cockcroft et al). 1989;83:913-20
Tissue extracts
Immunotherapy with cat-and dog-dander extracts. IV. Effects of 2 years of treatment (Lilja et al). 1989;83:37-44
Topical agents; *see* **Administration, topical**
Training program director's reading list
Training program director's reading list for board examination in allergy and immunology—1989. 1989;83:495-508
Transplantation, autologous
Anaphylaxis to infusion of autologous bone marrow: an apparent reaction to self, mediated by IgE antibody to bovine serum albumin (Macy et al). 1989;83:871-5
Turbinates
Release of high-molecular-weight neutrophil chemotactic activity from resected human nasal turbinate after antigen challenge (Nagakura et al). 1989;83:656-62
Tyrophagus putrescentiae
Clinical significance and allergenic cross-reactivity of *Euroglyphus maynei* and other nonpyroglyphid and pyroglyphid mites (van Hage-Hamsten and Johansson). 1989;83:581-9

U

Urticaria
Refractory cholinergic urticaria successfully treated with ketotifen (McClean et al). 1989;83:738-41
Therapy of chronic idiopathic urticaria with nifedipine: demonstration of beneficial effect in a double-blinded, placebo-controlled, crossover trial (Bressler et al). 1989;83:756-63

V

Vascular permeability; *see* **Capillary permeability**
Vasculitis
Plasma concentrations of complement-activation complexes correlate with disease activity in patients diagnosed with isolated central nervous system vasculitis (Langlois et al). 1989;83:11-6
Venoms
Further observations of stopping venom immunotherapy: comparison of patients stopped because of a fall in serum venom-specific IgE to insignificant levels with patients stopped prematurely by self-choice (Reisman and Lantner). 1989;83:1049-54
Hymenoptera venom immunotherapy. I. Induction of T cell-mediated immunity by honeybee venom immunotherapy: relationships with specific antibody responses (Lesourd et al). 1989;83:563-71
Hymenoptera venom immunotherapy. II. T proliferative and T suppressive activities induced by *Vespula* immunotherapy: effects on long-term antibody responses (Lesourd et al). 1989;83:572-80
Vespula
Hymenoptera venom immunotherapy. II. T proliferative and T suppressive activities induced by *Vespula* immunotherapy: effects on long-term antibody responses (Lesourd et al). 1989;83:572-80

W

Wheal and flare reactions; *see* **Skin tests**
Wittig, Heinz Joseph
Heinz Joseph Wittig, head of the allergy division at Ochsner Clinic. 1989;83:703 (Obituary)
Wood
The toxicity of constituents of cedar and pine woods to pulmonary epithelium (Ayars et al). 1989;83:610-8
Work capacity evaluation
The effects of theophylline on the physical performance and work capacity of well-trained athletes (Morton et al). 1989;83:55-61